

NEW SERIES.]

FEBRUARY, 1872. [Vol. I-No. 2.

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# SAML. SANDS & SON,

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[ESTABLISHED 1848.]

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After 23 years' experience in the Fertilizing business, and after establishing a wide reputation for the purity and excellence of his Bone Dust, the subscriber has been induced to prepare a Phosphate suitable to the requirements and every way worthy the attention of the Southern Farmer.

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# AMERICAN FARMER

AND

# RURAL REGISTER.

"O FORTUNATOS NIMIUM SUA SI BONA NORINT

PUBLISHED BY SAML. SANDS & SON, BALTIMORE, MD.

Vol., I.-No. 2.1

FEBRUARY, 1872.

[NEW SERIES.

### "WHAT SHALL WE DO?"

This question asked on the day of Pentecost, taken in connexion with the answer given by the Apostle Peter, and which was quoted by Mr. Newton in his paper published in the Jan. No. of the American Farmer, was perhaps the most momentous ever propounded by the sons of men regarding their spiritual affairs; and the present condition of the Agriculturists of the South may be imagined from the appropriation of the same appeal, to their temporal condition, by one of its most respected and intelligent sons.

We have no doubt many attempts will be made to answer the inquiry, and we give below two communications bearing upon the subject: they are from representative men of their respective states, gentlemen well known to their fellow citizens, and whose views upon any subject will always command attention.

The plan adopted by Mr. Gilmer is one which we have been for years urging upon our farmers in our writings, and we rejoice to find that it has been adopted with such successful results in a quarter where we were not prepared to see it in operation.

Mr. Davis' mode of managing a large landed estate, which he gives, was begun many years ago, when he, in common with some other of our public men, thought he discerned the tendency of events which culminated in a change in our system of labor, and is also one which we advocated some months ago at the Convention held in this city to consider the subject of immigration,

over which Ex. Gov. Oden Bowie presided, and to which he alluded in his last pressago to the Legislature of Maryland now in session.

There are now, of course, comparatively few farmers who have the means, like Mr. D., to carry such plans into execution, the sale of part of an estate not being at present as easily effected, as when he commenced to change his mode of operations; but wherever it can be practiced, this is one of the means of working out the problem now pending.

The substitution of new methods and materials of culture, for the prevailing adherence to favorite staple crops, is a step we think in the direction of escape from the difficulties surrounding us. The establishment of Cheese and Butter Factories in the States of Maryland, Virginia, West Virginia and North Carolina, we regard with hopeful eve as an important movement towards relief. These states we contend are peculiarly adapted for the introduction of this system so successful both at the North and West; and we urge more attention to the cultivation of the Grasses as the basis for the successful inauguration of this system when public-spirited and enterprising men shall take hold of it. With the same end in view we are advocating the improvement of our Dairy Stock, and are glad to have the opportunity of here stating the fact, that in the immediate vicinity of this city there are many herds of improved cattle-peculiarly fitted for the object indicated -probably notsurpassed by those of any other section of the country; and we hope selections from theseherds will soon be scattered in every direction.

to supply a demand already widely extending. Grape Culture which, brought to perfection, can save to the country the millions now paid for foreign wines; the cultivation of the Beet Root, which can supply what is now considered a necessary of life, Sugar, and afford at the same time from the residuum of the roots used in its manufacture most valuable food for dairy cattle, can, and finally must be, introduced here; the improvement of our Tobacco culture to enable us to produce a better article and in larger quantities by the use of fertilizers specially suited for the crop; more thorough cultivation of the soil; concentration of labor and manure on smaller areas;these are all objects demanding attention, and calculated if carried out to meet the exigencies of the times; most of them can be introduced without any heavy outlay in commencing the improvement in our system, an improvement which has become indispen-

We only allude to these matters now, for the purpose of introducing the letters below; but our readers may be assured that these several subjects, with the various others which will always be pressing upon us, in the several departments of rural life, will receive our vigilant care and attention.

LETTER FROM GEO. C. GILMER, Esq., OF ALBEMARLE Co., VA.

Mesers. Saml. Sands & Sm, Baltimore, Md.:

Dear Sirs-When I received your prospectus, the recollections of those dear, good old times (now gone, I greatly fear, to you and me,) crowded upon my memory, and brought the light of other and happier days around me, and I wondered if you could now conduct such a paper as you then did? If so, what a treasure it would now be to your many old friends in Virginia! But, my dear sir, we of Virginia, have sadly changed in condition, spirits and hopes, yet, I am proud to say, many of us are Virginians still, and if you can now give us a paper as ably edited, and as suitable to our condition and times, as you then did, your paper will be welcomed into many a family in our sadly-oppressed old We Virginians still (and ever will) dearly love our good old mother, and the memory of what she once was is fondly cherished in the hearts of us all; and he who will come from anywhere, and in any way, to help her sadly oppressed sons and daughters to raise her from her present deplorable condition to what she once was, and what she can be again, will be justly honored by us all, and I pray God you can and will succeed. \* \* \* Whilst we have the climate, the water and

the lands, we sadly lack money and labor, and our system of farming must be changed ere When I was a we can hope to succeed. writer for your valuable paper, I then worked on this farm 22 field hands; I now have only two, and have the same six hundred acres of cleared lands, and my farm is to-day in as good order as then. I thought I knew at first our labor must become demoralized, and at once I set to work getting all my lands into grass as fast as I could, and I have now so nearly accomplished this so much-desired object that I have no lands for another crop of corn, and only have to put my last year's outfield in peas and buckwheat for a wheat fallow and grass next fall, and my last field in corn to be put in outs, and then likewise in peas and buckwheat, for a crop of wheat and grass; then I have accomplished my plan, all ready for grazing, fattening, mowing and sheep-raising, and thus be almost entirely relieved from the ruinous employment of our demoralized labor. Our present condition in Virginia, I believe, is more owing to the excessive hiring of worthless labor, and the too liberal use of worse than worthless manures, with which our country has been so sadly flooded since our late unfortunate war, than to any and all other drawbacks besides. I am now using only lime and plaster and homemade manures, and advise all of my brethren of the plow to do likewise. The attention of the Virginia farmers must now be called to the little things, for almost all of us have become little fellows.

With best wishes for your highest success, I am, as ever, most truly your warmly attached old friend, Geo. C. Gilmer.

Letter from A. B. Davis, Esq., President of Board of Trustees of Mary and State Agricultural College.

Messrs. Saml. Sands & Son: The well-written article from your old and valued correspondent, Hon. Willoughby Newton, of Westmoreland county, Va., after describing the state of agriculture and condition of the landed interest in that State, so recently the theatre of a desolating war, concludes with the important inquiry "What, shall we do?"

I know not how this inquiry can be better met than by calling out the practice of those who, like Mr. Newton, have had to experience a revolution in their labor system—for labor is the foundation of successful agriculture, as well as of mechanics, mining or manufactures. For what it is worth, and no more, and as a means of calling out the experience of others,

I place mine at your disposal.

About thirty years ago I found myself in possession of about 2,000 acres of land, divided into farms of 800, 300, and two of 450 acres each, with an additional wood lot of 200 acres, situated respectively one and a half, four and eleven miles from my residence on the larger tract. I attempted to farm all these, under my own superintendence, and mainly with the same set of hands, keeping a family on each outlying farm for oversight

and protection. I found this plan an exceed-ingly laborious, expensive and unsatisfactory system, entailing great loss of time and loss of tools and implements in changing from one place to the other. In the Reform Convention of 1850, of which I was a member, although action was taken seemingly the reverse, I became satisfied that slavery, in this State at least, was doomed to a not very pro-longed existence. I therefore deemed it wise to prepare for an event which, if not desirable at the time, was yet one which seemed inevitable, and which I could not delay or postpone if I would. The only alternative for this loss of compulsory labor, and relief from the toil, loss and anxiety which so widespread a superintendence entailed, was to adopt the tenant system. To do this I began to improve and add to the old buildings on the outlying farms, and to build new to meet the wants of future subdivisions. I also sold off small portions of the outlying farms, which could not conveniently be brought under the system I was about to inaugurate.

it was not long before tenants began to apply for such farms as I was willing to rent, and withdraw from the cultivation of, under my own personal management. The resuit is that I now have on one of the 450 acre farms, diminished by 150 acres sold off, three tenants, including a grist and saw mill, and a bone mill to make my own superphosphates, with a store and wheelwright shop (a blacksmith occupying one of the portions sold off), containing altogether a population of thirty or thirty-five souls; on the other 450 acre farm, two young tenants with small families, and preparations making to build for a third in the spring. On this farm I reserve about 150 acres of lowland for pasturage for young cattle. On the home, or 800 acre farm, after reserving about 100 acres for fruit, vegetables and pasturage, I have two tenant farmers, occupying about 200 acres each, with large families of industrious young men (white, as are all the other tenants but one), eight other houses for laborers and workmen (one occupied by a carpenter and another by a stonemason), and a small country mill and sawmill; to which I have added a foundry and machine shop for making and repairing agricultural machinery; making in all eleven houses, with a population of about seventy souls, and preparations making for a twelfth family in the spring. The 300-acre farm has been sold off. These sales, afforded me more than the means necessary for the several improvements I have I will here take leave to add, that I regard the improvement of fixed capital as the safest, most useful, and most profitable investment of money. It not only gives an almost certain and profitable return upon the amount invested, but at the same time brings into use and makes more valuable the original capital thus improved.

The question may be asked, how does the system work, and how do you like it? My answer is that, with all the drawbacks of unfaithful and irresponsible tenants, to which

the system is undoubtedly exposed, from my own experience I like it so well that I would not go back to the old system if I could. I am, for the first time in my life, a free man, with opportunity to go where I please and when I please, without the care, anxiety and responsibility inseparable from the old system, and, with the tenants I now have, the land is worked and kept up as well, or nearly as well (in some respects better) as when the whole was worked under my own personal manage-Yours respectfully,

A. B. DAVIS. Greenwood, Montgomery co., Md., Jan. 10, 1872.

From H. Cheatwood, Esq., of Bedford, Va.

Since the above was in type we have received from H. Cheatwood, Esq., of Bedford Co., Va., the following, which we give as bearing on the subject under consideration:-

I am trying grazing, and I believe, moreover, if Virginia is ever built up and her worn-out lands reclaimed, it must be done by judicious grazing and farming. It will require time, labor and capital, and a degree of energy, will and perseverance not heretofore practiced by us, and a degree of economy, retrenchment and reform, together with an amount of labor and personal attention on the part of the owners of the soil not practised beretofore. Let our farms be reduced in size, and if more land is wanted, make that which we have richer; rely upon our domestic manures and not upon the many fertilizers that are on the market; bring up our sons to work and to farm, and let them know it is not only an honorable profession but that it is entirely so to labor on a farm.

My experience is that grazing pays much better than cultivating the land, and I discover that the land is improving rapidly, all things considered. Our lands have been and are now damaged more from the washing rains than from the crops they produce. Put in grass and let it sod—that is the best and only preventive. Our lands want also deep plowing and the subsoil broken up. The top soil has been exhausted, let us go deeper and get something that has been as a hid treasure.

H. CHEATWOOD.

To the Editors of the American Farmer:

### AGRICULTURE: Its Elevating Influences.

My contribution to your first number was intended as introductory. My purpose was to open up the field of investigation, so long untrodden, and to mark out a new line of inquiry, rendered necessary by the charges in our condition, and the disturbing events of the last ten years. I did not present you with what you call facts, which you and all agricultural editors seem particularly anxious to obtain. When I shall have had sufficient opportunities for observation in our new circumstances, I will endeavor to present you

with facts which have the certainty of truth; in the meantime, you must indulge me in a few general reflections, which are quite as practical as if they related to material objects.

Your new journal is very creditable in contents, matter and typography. But, pardon me for saying that your readers will not recognize in it their old acquaintance, the American Farmer. If the remark were not so trite, I would say it is the play of Hamlet, with Ham-You have omitted the beautiful let left out. and classical motto, taken from that great poem of Virgil which practically treats of our art in all its branches, and which has been said to be the most perfect and finished production in the Latin language. It inspired the fainting hearts of the Roman farmers, ruined and broken-spirited by the desolating civil wars, with new energy and hope; and its author is said to have conferred by it a greater blessing upon his country than if, by his arms, he had obtained the most splendid victory over its enemies. For more than nineteen centuries these stirring words:

> " O fortunatos nimium sua si bona norint " Agricolas,"

have moved the hearts of every farmer of cultivated taste. They are more than ever appropriate to our condition now. Lalmost feel personally aggrieved by their omission. We are in a great measure creatures of sentiment; and it often happens that the current of our whole lives is directed by some slight circumstance which in early youth affecting the feelings, gives impulse to our being. Though bred to different pursuits, which engaged my earuest attention, I have been always an enthusiast in agriculture. disposition of mind I can trace to nothing else but this motto. More than fifty years ago, returning home to spend a college vaca-tion, with mind filled with the beauties of classical literature, I saw for the first time the first number of the old AMERICAN FARMER. then just issued by John S. Skinner. It was in the bands of a brother-in-law—a gentleman of exquisite taste and great accomplishments. The motto greatly impressed me. My friend was engaged in thinning with his own hands a crop of Ruta Bagas, planted according to the ample directions of Cobbett, published in full in that number. I assisted him gladly in his grateful task, and in all the occupations and vicissitudes of life I have vividly remembered this my first agricultural labor. Returning from the animated discussions at the bar, or the still more exciting contests of the hustings, or the selfish and disgusting wranglings of the House of Representatives, no sooner did I reach the portals of my quiet home than the soothing influence of this motto would come over me. It followed me like some delightful enchantment. When roused from slumber, in the early morning, by the warbling of unnumbered birds in the new-leafed trees, making each bough vocal with their melody, I turned my feet to the well-cultivated garden, rich in all those objects of grace and beauty that give pleasure to the eye-the air

loaded with the perfume of a thousand flowers; and saw vegetables in every stage of development, and the kindly fruits of the earth, ready to be offered to the grateful heart in due season, I could but feel that these were enough to inspire the words of the poet.

A farmer fresh from such a scene, who walks abroad, startling from the dewy grass the cheerful lark that carols in the air, and sees his flocks quietly reposing on the distant knoll, and in the plain below his well-kept herd, and the lowing kine ready to pour out their morning offering; and casts his eye over his fields of growing grain, rich with the promises of spring and the anticipated glories of autumn, and is unmoved, must be as insensible as the man who "has no music in his When returning from such scenes, properly impressed, the farmer meets his expectant family around the domestic altar, and humbly pours forth his thanks for all his unnumbered blessings; and then views his board crowned with abundance, and his loving wife as the fruitful vine upon the walls of his house," his sons like young olive plants around his table, and his daughters like the polished corners of the temple, how can he refrain from the fervor of the poet?

Pardon, if you please, this seeming enthusiasm in one who, though not very young in years, hopes rever to be too old to enjoy "whatever exalts, and embellishes, and renders life delightful."

I pray you, gentlemen, restore the motto. The picture which I have drawn will now be regarded as a fancy sketch. The red plowshare of war has passed over us. Our hedges have been broken down, our vineyards destroyed. "The wild boar out of the wood doth root it up, and the wild beasts of the field devour it," yet I live in the hope, for my children's children, that it will one day be restored in all its beauty-that our agriculture will be revived and invigorated, and that our ancient civilization, though greatly modified by circumstances, will return, refined and purified as by fire, and exercise a salutary moral and social influence on the whole country.

There are others, however, who think differently, and who regard the motto as a mockery. They think agriculture is the most exacting, the hardest and least profitable of all occupations. This feeling is so general that there must be a cause for it. The complaint in New England is as loud as in the South. The young men are leaving the homes of their fathers by thousands, some in the hope of doing better in the West, but far the larger number because agriculture is not sufficiently exciting, is too exacting in labor, is not sufficiently "intellectual" for the aspiring young farmers of Massachusetts. But, whatever may be the cause, they are leaving the farms and crowding the cities, villages and railroad stations in search of excitement. I asked an old crone who has known several generations, the cause of this alarming fact. She replied: "I'll tell you, honey—they are afeard of the plow-handles." I am not sur-

prised at this. The plow is a very useful implement, and no man who can work should be too proud to use it. My own son is very expert with the plow, and I would enter him in any contest to run a straight furrow from 100 to 800 yards, but I would not by any means advise him to follow plowing as a daily occupation when he can get as good a plowman as himself for fifty cents a day. agree entirely with Channing, that bodily labor in moderation is healthful, and not injurious, but, when carried to excess, it dwarfs both body and mind. In the warm climate of the South it is particularly important for the white race, at least, to husband their strength. God has furnished a class of laborers suited to the circumstances of the country, which it is our duty to use for their good and our own.

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But I fear you will not regard me as practical. In this utilitarian age nothing is regarded as practical which is not material. There could not be a greater delusion. A great truth flashed through the universal mind, like the electric current around the globe, has often produced greater practical results than a whole army of laborers. A physician is called to see a patient laboring under congestion of the vital organs, with cold extremities, without circulation. He sees the situation at once, writes a line to the apothecary, gives instructions to the nurses, and proceeds on his errand of mercy. The next day he finds his patient restored. He is an The next eminently practical man. Our monetary system is just in this situation, and hence the calamitous condition of agriculture. If a Turgot, Colbert, Neckar or Hamilton could be found, who, by his pen, could furnish a prescription to relieve this engorgement, and send to all the extremities revivifying circulation, would not all the country rejoice, and pronounce him not only a most practical man, but a great public benefactor? I doubt not there are many such men in the country if power were given them to write the prescrip-

It is my purpose, in the interest of the farmers, to endeavor to awaken this spirit of inquiry among thinking men, and to that end I shall offer you, from time to time, my reflections on various social and economic questions in which farmers are deeply interested. These will embrace: Land-leasing, renting, sales, and the best mode of occupying by the proprietor; Labor-native and foreign, and of both colors; and, incident to labor, Immirra-tion, Capital, and Transpor ation, including railroads and their good and evil effects on commerce and agriculture. This, Messrs. Editors, opens a wide field, and I do not wish to monopolize the labor or honor of working it. I have no desire but to promote the pub lic good, and I hope you will invite the freest inquiry and comments of gentlemen whose leisure and habits of thought will enable them to shed light on such important subjects. I claim no exemption from error, and close with the remark of a great thinker: "Error of parts.

opinion may be safely tolerated when reason is left free to combat it."

WILLOUGHBY NEWTON. Linden, Westmoreland co., Va., Jan. 8, 1872.

### On Growing Root Crops for Stock.

In growing root crops as a general rotation farm crop, there are two things to be considered: first, the improvement of the land, and, second, the benefit to stock in being fed roots during the winter. It is the more necessary, in considering this subject, to take these matters into account, as a root crop solely for feeding stock is not a paying crop. After careful experiments made in feeding fattening cattle with roots, the writer has satisfied himself that roots, representing in the production thereof a given value, will not make that value in meat when consumed by fattening stock.

We deem it right to make this admission at the commencement of this paper, that no misunderstanding may exist, yet whilst this is a generally admitted fact, it is also true that high farming—which means successful farming—cannot be carried on without root crops. Admitting this, it becomes necessary to consider which is the best and most profitable root crop to cultivate, and this depends somewhat upon circumstances—as the kind of soil, its fertility, &c.

In light friable soils, Carrots give a much heavier crop than on a soil of an adhesive nature. It is well, however, to grow as great a variety as convenient, making that crop which gives the best returns the most extensive. And we are doubtless safe in saying—all things considered—that Mangold Wurtzel, well grown and well kept, is the heaviest and the most useful root crop for the farmer to grow, inasmuch as they are well liked by stock, are nutritious, and will keep till the Spring, as crisp, and almost as fresh as when housed—a quality that can be claimed for no other root.

Ruta Bagas, are too well understood to need more than a passing notice here; it is however proper to state that when fed to dairying stock they usually give to butter an unpleasant taste, and it is well, therefore, where dairying is a specialty, to grow carrots mainly, both on account of the rich color they impart to the butter of cows fed with them, and also the improved condition they produce in cattle as well as horses fed with them -The best varieties to grow may be found in the catalogues of all first-class seed housespurchase of no other! The Belgian varieties are usually the beaviest croppers, but are not so much grown as some others. Our favorite varieties are Scarlet Altringham and James' Intermediate. The Long Orange is however a very favorite variety with dairymen in some

Kohl Rabi is scarcely worthy consideration except as a vegetable. Jerusalem Artichoke, Helianthus Tuberosus, is a tuberousrooted plant that will grow in soil too poor to produce any other useful crop. It is sometimes grown as a vegetable, and when so grown, should have the same attention as other root crops. The cultivation of root crops is of the very first importance to farmers generally; it is also very simple. A good, deep fertile tilth, and clean culture, are the requisites, and without these it is worse than useless to attempt their cultivation, inasmuch as the farmer thus loses the benefit of the crop and the land loses what it would otherwise gain by thorough tillage, the latter being a point of the most vital importance.

MANURES.-The back-bone of all good farming is well made, well kept, and judiciously applied farmyard manure. We frequently observe in agricultural papers questions asked in reference to special manures, giving one the impression that the idea with these correspondents is that run-down, poor land can be made fertile by the application of some artificial manure. This-in the way it is here understood-is an error of the worst kind, as the result of the application of artificial manure on poor land, unassisted by farmyard manure-we think we are safe in saying-never equals anticipation, and very often falls very far short of it, thus discouraging the farmer and bringing the manure

into bad repute.

We always prefer to use a little manure sown with the seed, just sufficient to give rapid growth from the first, finding that thus treated they escape the ravages of the turnip fly, &c., much better than when no such stimulant is applied—and for this purpose we invariably use a preparation of bones, there being too much adulteration with many other kinds of manures. Moreover we think that, in sizes to suit the purpose, bones are prefer-

able to most other fertilizers.

Notwithstanding all that has been said and written on the subject in this country, we are still persuaded that certain root crops-ruta bagas for instance—cannot be so well, nor so profitably grown here as in England. Weare unceasingly told by some that root-culture in England has doubled the yield of grain, increased her capacity for feeding stock, made her farmers wealthy, and that it is in fact the basis of the agricultural prosperity of that country. All this is comparatively true, nevertheless the whole essence of the matter is contained in one sentence: Successful rootculture is impossible without deep cultivation and heavy manuring! We take it that our agriculturists are sufficiently intelligent to know that high farming needs this, without introducing a crop to compel them to it. Our humble opinion is that roots are a pure necessity, but they can never supersede our great staple, Corn.

In addition to the incentives to grow root crops herein set forth, is it not the basest ingratitude to a benevolent Creator, that whilst we can enjoy the benefit of fruit, pickled, dried and preserved, as well as in its natural state, we make no effort to obtain something equivalent, something health-giving and enjoyable for the stock in our possession during the Winter?

# Our Agricultural Calendar.

#### FEBRUARY.

Upon the farm, in the Middle States there can be but little work done during this month, but now is the time to be making the necessary preparations for a vigorous effort, when the season opens, for the getting in the spring crops. There is an old proverb, "the greater hurry, the less spee!," which is as applicable to farm work as to any other branch of business—system does not require undue haste, but all things should be done in order. Therefore we recommended in our January No. that the plans of the husbandman should be haid out at the beginning of the year, and deviated from as little as possible, except when circumstances imperiously require a change.

Oats.-This crop is never considered a well-paying one, but the reason is too frequently to be found in the fact, that whatever others may receive in the way of plant-food, it seldom falls to the lot of Oats to get a Benjamin's portion.-It is generally found that whilst manure is specially appropriated for the potatoes, or the corn ground, or any other that may be determined on for spring culture, the residuum is but triffing for this-and hence is obtained for it a not very enviable character for profitableness-but it is valuable to be fed on the farm, and even that king of plants, Corn, cannot entirely supersede it for horses, while the straw is very useful for cattle. If treated to their full share of manure, the yield of oats can be made to reach 50 to 60 bushels, on fair quality of land, but they seldom produce an average of more than 25 to 30, and the price may be set down at 50 cts. per bushel. At a discussion upon their culture, at a meeting of an agricultural club, more than two thirds of the members voted them a profitable crop—but various reasons were assigned, the principal of which was that whilst the yield and the price would not pay when the grain was to be sold, yet it was preferable to sow them rather than raise a crop of weeds on the field interded for wheat in the fall; and some of the best farmers who have for years dispensed with their culture. have determined to return to it again. The expense of seed, cultivation, and threshing, is estimated at \$6 to \$9 per acre, and if 30 bushels is raised, this would bring \$15, and

the straw is worth one-half of that sum in addition. It is advisable therefore to sow oats, and the earlier the crop can be gotten in after the frost is out of the ground, the better; but the seed should be put in only when the land is dry and in good order. In the more southern latitudes the earlier the oats are sown, the better will be the crops, all things else being equal-this will be found generally true wherever the crop is raised, and the quality will be better and the quantity increased.

Manures .- If you are disposed to be generous to this crop, so that it may do its best, we will give some hints to help you in your praiseworthy efforts. If you intend sowing grass seed with the oats, or, if you expect to put in a crop of wheat upon the same field, in the fall, it you will sow 300 to 350 lbs. bone dust mixed with 10 bushels ashes, leached or unleached, the former the better of course, and 7º lbs. guano, and spread it broadcast, this would produce a good crop, and leave your land in excellent condition for either the grass or the wheat. Or, if you prefer to sow grass seed with your wheat in the fall, apply broadcast to each acre a compost composed of 5 to 6 double horse-cart loads of stable manure, with double the quantity of woods mould, or of river mud, to be well incorporated and permitted to remain one or two weeks in pie; plough it in and harrow and roll the ground; this will produce a good crop of oats, and it will be increased if a topdressing is given of ashes, say 4 to 5 bushels an acre, with a bushel of plaster added to it. Peruvian guano alone will produce a good crop of oats, but it will not pay, as at least 150 to 200 lbs. would have to be applied, and this would have but little effect upon the subsequent crop. If you have a marl bed handy, with 50 or 100 bushels marl per acre, mixed with 5 or more loads each of marsh mud and stable or barn yard manure, broadcasted and ploughed in, a good crop can be anticipated.

Seed .- The quantity of seed sown is 2 to 3 bushels-those who sow clover seed with oats, think that 3 bushels of seed of the latter make so thick a stand, that the clover has but a poor chance, hence it is recommended to dispense with the clover and sow it only with wheat, where it has always a better prospect of success; or sow the smaller quantity of

oats indicated.

For remarks upon ploughing and preparation of the soil, as well as upon manures, we refer to articles elsewhere.

Corn Planting .- Although there is time enough to begin preparations for this crop, yet the old saying is "in peace prepare for war:" and before the various matters which must claim attention in the Spring are upon you, to enable you to pitch your crops in time and in a proper manner, those things which can be attended to beforehand should not be neglected. Some of these we noticed in our last, and we will now only refer the reader to

them. Corn is the great crop of this country -its money value, according to the report of the Statistician of the Agricultural bureau, for 1869, amounted to \$658,532,700, whilst the total of wheat, rye, oats, barley, buckwheat and potatoes, combined, amounted to only \$500,000,000. The hay crop of the country was \$337,662,600, the Cotton crop \$303,600,000 and the Tobacco \$32,206,325. The great value therefore of the corn crop requires that the most should be made of it, as it is capable of supplying nearly all the real wants of man and beast, and nearly every particle of it,the grain, the fodder, the cob and the stalk,can be turned to good account. It is perhaps the safest, and in most soils, the most remunerative of any other crop-it is subject to drawbacks, but these can be more generally overcome or avoided in this than in most others by diligence and energy-by being in time to plant, to secure the early showers, and by keeping the earth stirred to receive the rains and the dews of Heaven. As we shall in our March and April Nos. enter more largely into the subject of its cultivation, we now only urge upon the corn planter to make the necessary preparations to have on hand in time his manures, whether home-made or commercial. Our remarks upon the subject of manures in this and the Jan. No. are referred to, as a general basis of action. Corn is a voracious feeder, and to obtain a full return for your labor, you must do your whole duty, both in the preparation of the soil, and the supply to it of the necessary plant-food for the demands of the crop. Better put in no more land than you can do full justice to, than to expend your efforts in vain on a large space of ground which you can can neither sufficiently manure nor properly cultivate.

Clover and Grass Swards .- If you have such that you intend for corn ground in the Spring, and have thus far neglected or been unable to do so, it will be well to avail of the very first opportunity to manure and plough it up, taking care to sow a bushel or even half a bushel of plaster over the manure before turning it under. As the season for this work is advanced, it will be better to turn the furrows flatter than when done earlier, when an angle of 45 deg. would have been sufficient, The ploughing being done,—and we need only refer to what is said elsewhere in relation thereto, except to add, that it should not be less than 8 inches deep,—it will be well to roll lengthwise the furrows to close the seams and to prevent the escape of the volatile portions of the manure. When you are ready at the proper season for corn-planting, harrow lengthwise until a fine tilth is obtained, then broadcast over your field at the rate of 5 bushels ashes and 10 bushels of lime per acre, harrow that in, roll and lay off your ground for planting. If you cannot obtain the requisite quantity of ashes, a substitute therefor, for an acre of land, may be made by intimately mixing together 20 lbs. crude potash, 20 lbs.

christalized carbonate of soda, 10 lbs. sulphate of soda, and 10 lbs. common salt, and sowing the mixture broadcast over the field. Corn is, to a considerable extent, a potash plant, the ash of the whole plant, leaves, stalk, husks, kernels and cob, containing a larger per centage of potash than any other substance except silicic acid (sand)—and all soils long in cultivation, must nece assarily have been nearly exhausted of its native supply.

We would be much indebted to any of our chemical friends for a chenper, simpler, or more potent substitute for ashes than is given above. We deem it one of the necessities of the present new era in agriculture, to obtain a formula of the kind. Dr. Nicols thinks that this want of potash will be supplied in due time from the recently discovered deposits of Germany, but the freight, daties and other charges, will probably make it too dear for some considerable time to come for the bulk of our farmers.

Sowing Clover Seed on Wheat .-It is considered preferable to sow clover seed early in February, and if there is snow on the ground so much the better, as it can then be seen where the sower misses and the remedy applied, thus securing a more uniform distribution of the seed-about 12 lbs. to the acre is the right quantity. If not sown as above, then it will be better to delay the work until the ground is dry enough to carry a team without peaching; then sow the clover seed, harrow it in with a light harrow and roll .-We urge every farmer to have a roller; a large, heavy log, with irons at each end, and which any smithery can furnish for a trifle, should be on every farm. We cannot stop to dilate upon the subject, but would say, that if It is but of the rudest kind, have a Roller. If 2 bushels orchard grass seed were sown with the clover seed, it would produce a much better hay than clover alone. We give another nrticle on this subject.

Care of Stock —Working stock of every kind should at this season be carefully tended. So far as Horses are concerned, in another department will be found an admirable article in regard to their management, and therefore we need say nothing further on that head. For the treatment of Dairy Cows, Springing Cows, Heifers and young Cattle, we refer the reader to the Jan. No.

Tobacco Beds —A Virginia planter furnished us some time ago with a minute description of his mode of cultivation of this crop—from which and other sources it is recommended that the ground intended for it should be well ploughed in the fall or winter to produce a good crop. For the plant bed, should be selected a virgin soil with an exposure from the east, south to west, raked clean, and then burned over with brush or small

wood, then hoed to the depth of 3 or 4 inches until the whole is reduced to a fine tilth; it is then laid off in ridges 4 feet wide and raked with a fine rake, the space between the ridges being the width of the hoe, the surface of the ridges as nearly level as possible; the ridges should be north and south if the location will admit. W. I. Blackiston, Esq. of St. Mary's Co., Md. gave this as his mode of preparing the seed bed, in a paper written for the prize of a silver cup for the best essay on the culture of Tobacco, offered by the senior editor of the Farmer, whilst formerly conducting this journal. After preparing the bed as above, Mr. B. applied one four ox load of most recently made stable manure to 400 square yards, upon the surface, and seeded one table-spoonfull of seed to each 100 square yards, afterwards patting with the hoe. To raise the manure, the stables are swept clean of all seeds, and then littered with wheat straw; the horses' long food is wheat straw, their manger food, corn. Keep the manure from rain, and sun, until used upon the bed, and then equally distribute it over the surface with the hand-Care should be taken that no lumps be left on the bed, so as to prevent the seed from reaching the earth. No other covering should be used, as the wheat straw in the manure is amply sufficient, and the best covering it can have. Plaster is then applied at the rate of one bushel to the acre, and when securely fenced in either with a rail or hedge fence, the bed is completed. Brush should never be used as a covering, as experience proves that it retards the plants at least three weeks. and moreover renders them more liable to be destroyed by the fly, particularly when taken off. The straw should not be removed at all, as it does no injury, but on the contrary is a constant benefit to the plants. When the plants are generally up, top dress with 1 bushel drawn ashes, \(\frac{1}{2}\) do. hen manure, I gallon planter; these proportions will do for 400 sq. yds.—to be repeated whenever washed off by the rain, unless the plants should indicate from their growth the absence of any necessity for a further application. If the fly is bad, the mixture should be used whenever washed off, but always applied when the plants are dryabout noon is the best time. If a long drought should come on, an occasional application of half the above compound, say twice a week, is the best preventive against its effects. Liquids should never be used except to promote the growth of plants in damp weather, and then are not necessary if the above mixture is used, as it will accelerate the growth as much as is desirable. Keep the bed free from weeds and grass at all times, and it is indispensable that the bed should be well drained. The bed should not be raked after the manure is applied, as it will be very likely to ruin it. Mr. Blackiston after he had adopted the above plan for twelve years, always succeeded with his plants, never having a bed injured by the worm, but has had them entirely destroyed when the plants were fit to set out, when the manure was incorporated with the soil. Personal attention to these particulars by the planter, is the best security against failure. The time and mode of sowing the seed depends on the seasongood results have followed sowings on the 10th January, and others made as late as 25th March. The first good weather in Feb., as near the 20th as possible, is preferable, but as the weather is uncertain, the first opportunity offering between the middle of Jan. and last of March should be embraced; but be sure to have the brush or wood hauled in place, ready for use. To have as equal a distribution of the seed as possible, make two sowings, one lengthwise and the other crosswise the led. The protection above indicated for the young plants, of stable manure and wheat straw upon the surface before seeding, is an effectual protection against frosts, and a great security also against insects; added to which, the top dressing recommended of ashes, hen manure and plaster, as often as circumstances require it, will prove as effectual a remedy as can be devised, and if a gallon of soot is added to the other articles named, it would be an improvement. We would add that the Rev. Mr. Fife, of Va. advises that 10 lbs. of guaro to every 100 yards of the plant bed, will give power to the land to produce vigorous plants; and as it is desirable to plant by the last of May or the 1st of June, in his quarter, it is deemed advantageous to sow 21 lbs. guano to every 100 yards about the second or third week in April, and in the middle of May 24 lbs. more; sift the guano very fine that it may be all carried in by the water, which must be applied with a watering pot, and the quantity regulated by the wetness or dryness of the soil, and if the plants are ready to set out by the last of May, it is not necessary to wait for rain, as there is always moisture enough in the land at this early season for planting. We will continue our remarks on this subject in a subsequent number.

Orchard Grass Seed .- More attention is now being paid to the sowing of orchard grass seed with clover. Farmers are slow to take hold of suggestions that seem to be new, and in general they are right-but some things appear to be so self-evident, that it is strange they are overlooked. We years ago recommended most strenuously this admixture, but it o ly appears within the last year or two that its great advantages have been fully realized. Upon every acre of the wheat field sow 12 lbs clover seed and 2 bushels orchard grass seed, the clover first, by itself, and the orchard grass afterwards; the latter moisten previous to sowing, and let it lie on the floor where it is spread for the purpose 12 hours before sowing, first mixing it with twice its bulk of sand or ashes, the more readily to distribute it. The combination makes a much better hay than clover alone; it produces more hay the first cutting; the aftermath is greater; the autumn pasture more luxuriant and enduring, and cattle are not so apt to be

affected by hoven by it. As both come into bloom about the same time, when it should be cut, the objection of coarseness against the orchard grass is obviated; and the rapidity of its growth is likely to protect the clover plants after wheat harvest, after which period an additional protection to the plants from the sun will be found in sowing 2 bushels salt and 1 of plaster per acre, as soon as the wheat is removed from the field, as this top-dressing attracts moisture from the atmosphere, and thus stimulates the plants; the salt and plaster are of themselves manure, and they also act as agents to draw food from the air.

Pasture Fields - Whilst upon this subject, let us say, that if you have an old field which has become unproductive, and wish to convert it quickly into a permanent pasture, early in the coming Spring, or if not convenient then, carly next Sept., harrow the ground several times, say twice each way, with a heavy harrow; and have prepared a mixture, per acre, of 10 bushels of ashes, or its equivalent of potash, 500 lbs. bone dust, 2 bushels salt and 1 of plaster; throw the whole into bulk and let it thus remain for two or three weeks, the bone dust to be moistened before being incorporated with the other ingredients -spread the mixture in the quantities named -then sow the following grass seeds in the proportions given, per acre. viz:-10 lbs. timothy, 1 bushel Ky. blue grass, 1 bushel Orchard grass, 1 qt. sweet scented Vernal grass, ½ bushel Perennial Rye-grass, and ½ bushel red top seed—mix the whole before sowing with four times the bulk of dry sand, or ashes-and when sown, lightly harrow the seeds in and roll. This is a pretty expensive job, but it will be one that will quickly make you a good return, and mereover, it will last for many years. The field should be neither cut nor grazed the first season, and in the winter succeeding the setting of the grass, when the ground is frozen, spread 50 bushels marl, or 25 of lime per acre, evenly over it. Every second year, however, the benefit will be evident if you will sow a mixture of 150 lbs. of bone dust and 5 bushels of ashes, per

Shade Trees—Shrubbery.—Every farm-house should be surrounded with shade trees and shrubbery, the former at such a distance from the dwelling as not to obstruct the view, or to keep from it the full light of the sun. Nothing adds to the beauty of an estate more than these valuable adornments. This remark is applicable to all quarters, but more particularly to landed property near cities and vilages. A homestead of this character, endears it to the immates, especially the young, and causes them to prefer it to the city life, which has seduced and deceived so large a number of the best young men from the country, and entailed upon them and their families a life of genteel misery. Most business

men in large cities, of the small proportion who prosper, ardently aspire to the ownership of a pleasant home in the country-but few, however, ever realize what they anticipateand why? Because if they ever test it, they have not been educated in a manner to enjoy the condition and surroundings they there find. In the language of a correspondent, "their education and culture must be of a character that will disclose in all nature something to admire; they should have a know-ledge of those sciences which unlock the wonderful mysteries of Nature, by which the way in all their toil will be lighted up and enlivened with cheerfulness and pleasure.' Those therefore who make up their minds to purchase a home in the country, will stand less upon the price, than upon the advantages which surround the property offered themthe shade and fruit trees, the vines and shrubbery, which surround the dwelling and the out-houses will be the first and most attractive objects which their eyes will reach .-Money is but a secondary object to having a home beautifully adorned with all the foliage of nature. There is no time to wait for years for the fruits of the trees and vines they may desire; to enjoy the shade of the luxurious foliage they have so long sighed for, whilst sweltering among the brick walls of the city in the heats of summer. No one knows, amidst the changing scenes of life, how long he may live to enjoy his estate, and when the necessity arises for its sale, to effect a division among the heirs, or from whatever cause, then will be found the difference between the home above described and that wherein these adornments have been neglected. Every landholder should, therefore, make it a point to add to his homestead, every spring or fall, a certain number of shade and ornamental trees to adoru his estate.

Orchards.-In this department, too, let us advise that you add to the number of your trees with no stinting hand; they "put money in your purse," if properly selected and cared for. In many locations, a few acres set in fruit trees, produce a larger revenue to the owner than would ten or twenty times the quantity of land in the staple products of the soil. Ah, to be sure, cannot avail of such advantages, but those that can do so, should make additions, year by year, of approved varieties both of the large and small fruits.

When the bark of your apple trees is rough or mossy, scrape the trunk, and apply a mixture composed in the proportions of a gallon of soft soap, a quart of salt, and a pound of flour sulphur.—Take a whitewash brush and apply the mixture from the root of the tree to the first series of limbs, or indeed you may extend the operation among the limbs. This will rid the trees of insects, and at the same time encourage the growth of a new and beautiful bark. Dead limbs should be carefully sawed off close into the sound wood; smooth the wound with a sharp knife, and

apply to the face of the wound a plaster composed of soft cow dung, clay and mortar powdered fine, in equal proportions-or of equal parts of rosin, beeswax and tallow, either to be supported by strong paper or cloth of some kind. In many cases this pruning will suffice, as too free use of the knife has frequently de-

stroyed many a fine tree

To induce the production of fine fruit give to each tree two bushels of the following mixture, which should be thoroughly composted, and applied over a circle of at least ten feet diameter, viz: to every 10 loads stable manure add 20 loads wood mould, 2 bushels bone dust, 5 do. ashes, 1 do. salt, and 1 of plaster—work the compost into the ground lightly with a hoe, or plow it very shallow, say 2 inches, and carefully harrow with a light harrow, avoiding breaking the roots, or rubbing the bodies of the trees.

Ploughing and Preparation.-Whilst our remarks are specially intended for the oat crop, yet let us here, once for all, give it as our firm conviction, that the proper preparation of the ground is more than half the battle in raising good crops. It has been proved that land ploughed 5 or 6 inches will not yield, all things else being equal, more than onehalf as much as when the ploughing is twice as deep. After the surface ploughing is done to the usual depth, then run another plow in the furrow, and stir the under stratum to the depth of 5 to 6 inches more. Many farmers prefer that the subsoil be not mixed with that of the surface, but by loosing it, the roots can penetrate deeper, where they will find more moisture in the earth, and have also the advantage of the manure natural to the soil, and usually untouched by the plow. Let it be understood, that we must make an improvement in this branch of our operations, as much of our success depends upon our mode of cultivation. In our first No. we called attention, incidentally, to this matter, but we must beg again to allude to it, as we believe that if the ground is well and deeply ploughed, harrowed and cross-harrowed, and the roller then applied, success will almost be certainly insured, and much will have been done to make good any deficiency in your manuring—the latter, however, still further increasing the product, to an extent commensurate with the amount and quality of the manure used.

Let a demonstration here prove what we have said above about plowing. On an experimental farm, two plots of ground were selected, each containing about 144 acres— one plot, (A.) was plowed 9 inches; the other (B.) the same depth, then in the same furrow, 5 inches deeper, and then subsoiled without turning over, to a further depth of 7 inches, making in all a depth of 21 inches; the same manures were applied, and in all respects the plots were treated alike. The result was, that A. produced 82 measures of roots (sugar beet), and B. 190 measures; the saccharine matter in the roots of the first was 11.15 per ct., whilst in the latter it was 15.22 per ct; consequently the crop of B. contained more than three times the amount of sugar that

was found in the product of A.

Another test will further illustrate this allimportant subject, and perhaps aid, in some small degree at least, to clucidate the question propounded by Mr. Newton, of "What shall we do?" A cotton planter in Georgia, in an experiment to test the effect of subsoiling. with and without manuring, found the following as the result :- A row of cotton, unmanured and not subsoiled, produced at the rate of 385 lbs. of cotton per acre. Another row, unmanured but subsoiled, produced at the rate of 630 lbs. per acre, whilst a third row, both subsoiled and manured, gave at the rate of 1200 lbs. per acre, being nearly twice the quantity raised on the second, and more than thrice that on the first row designated; the manure was the average quantity used upon other plots that were ploughed and worked in the usual manner.

We know some will contend that one swallow does not make a summer; but proofs of similar results can be multiplied without number, and although like treatment of all soils and subsoils may not produce equally favorable effects as the above, yet we believe that such an improvement can be made upon our crops, by the proper ploughing and pulverizing of the soil, that a largely increased product will be secured-the main advantage attained being, the ease with which the roots of most plants can penetrate the earth after the stirring and lightening of the subsoil, which gives access more freely to the air and the rains, which will keep the ground moist below the surface, where it is not so likely to be dried up by the heat of the summer's sun, so that whilst other crops are suffering from drought, those on the land deeply ploughed have access to a store-house of moisture, to maintain themselves. But let it be under-stood, that the great benefit to be derived from the process recommended is predicated upon the plants having a dry bed upon which to rest-and when this is not the case, drainage must be resorted to, or the effects of the working cannot be expected to be realized to the fullest effect-if, indeed, at all.

### MANURES.

Composts on the Farm — Long experience and observation convince us, that the most profitable labor on the farm, is that of the accumulation of the materials for manure which can be found on the premises of every landholder, and the manufacture of the same into compost with the dung from the horse and cattle stables. In the manner in which the lands in the old states have been mangled for the last half century, the yield therefrom cannot be made to pay for the labor, now of so high cost, and yield a revenue to the own-

ers; consequently it is time lost to attempt to raise crops from land in the condition in which most of our farms are at present, unless a fresh supply of nutriment is furnished to it. It is true, those who may be fortunate enough to have the ready cash, can purchase commercial manures to effect a renovation of their estates, but alas! how few there are that are now in that position, the many letters we are daily receiving, congratulating us on again resuming our old editorial position, too plainly show. Even to those who may have the means, or enjoy the credit to obtain fertilizers, the experience of the last year or two has proved how futile have been their hopes. as the thousands of nostrums offered them have proved almost worthless, and really left the farmer worse off than he was before." therefore renew our urgent appeal to every farmer, when he cannot attend to other outdoor business, to employ every opportunity of hunting up all such materials as are to be found on and near his own premises, to increase his manure heap.

Lime. - Here let us remark, that all lands which have been long in cultivation, will be benefitted, if, in addition to the putrescent manures, a dressing of Lime is applied to them. Stone lime will be generally preferred, and if handy is perhaps the cheaper application; but, weight for weight, we have ever believed that oyster shell lime was the more desirable; the calcareous principle is the main advantage in both, but the latter, in addition, contains some two per cent. of phosphoric acid—and the same is true of oyster shell marl. When marl, however, is applied, twice the quantity is required to equal the benefits expected from the pure lime. Some fifteen years or more ago, the idea was advanced in the pages of the old Farmer, founded on experiments then made by its editor, that the quantity of lime most usually recommended and applied, at each dressing, was unnecessarily large-that ten bushels per acre was amply sufficient, but that this was to be repeated the oftener-that is, for each year, the quantity of lime per acre required was ten bushels, and if the rotation was one of four or five years, 40 or 50 bushels were amply sufficient, the dose then to be repeated. Within the last year or two, Prof. Vælcker, of the Royal Agricultural Society of England, in an address before that body, announced the results of a series of experiments which he had been making upon this very point, and they were identical with those advanced in our journal, viz: that all lands must have lime in them, either naturally or applied artificially, but that ten bushels per acre, for each year, was all that was requisite. Moreover, that lime was not a manure of itself, but that it had the effect of bringing into activity the mineral and vegetable materials lying dormant in the soil. However, so that there is not too much put on our fields, which many have found to their sorrow is sometimes the

case, seize the present opportunity of applying it in such quantities as your purse or convenience will permit, whether it be stone or oyster shell lime, or in the form of marl.

Ashes.-If it were possible to obtain wood ashes in sufficient quantities, the advantage would be gained of furnishing, in one application not only lime, but also every other inorganic constituent of cultivated plants. A bushel of good ashes contains about 51 lbs. of real potash, but in leaching them, the greater part of this and of the soda they contain, is abstracted, though the other ingredients re-tain the same value as before, among which phosphoric acid and magnesia are the most valuable with the carbonate of lime, which makes up the great bulk of the mass. Ashes. therefore, are preferable to lime, applied alone, as they contain all the elements of the inorganic food of plants-but, where there is in-ert matter in the soil, the lime will, from its powers of conversion, or decomposition, have a salutary influence, as is a lown by its action upon worn-out fields-and so long as it has substances to operate upon, its effects will be beneficial. The liming or marling of land, should therefore always be followed by clover or some other green forage crop, to be turned We admonish the farmer to avail of every opportunity of obtaining ashes-they ought to be scrupulously saved everywhere, or purchased wherever it is possible to obtain them at a reasonable cost. In the cities and towns, coal is so universally taking the place of wood for fuel, that it is now difficult to obtain much of a supply from this source, but, we again repeat, whenever poss ble they should be secured. The potash of commerce is generally used in the manufacture of manures, when it is intended to apply them for any particular plant requiring much potash, but the quantity so added we imagine is small, as it is costly; but better purchase it, than dispense with its application. See in another column an article on lime and ashes, by Dr. Stewart.

Bones.—We have in barn-yard manure, lime and ashes, all the constituents required for growing plants, but some of them are present in insufficient quantities for the demands of the crops. In our last we gave our estimate of the value of Bones as a source of supply of phosphoric acid, and presented methods for preparing them for use. In the articles named which the farmer may be compelled to buy, there are less frauds perpetrated, we believe, than in many other fertilizers offered him.

Plaster Paris.—The value of this article is conceded by nearly every one who has used it, and our appreciation of it is evinced by our frequent advice to use it in connexion with composts and other manipulations, and in the stables, &c. Elsewhere, in this number, we

have a special article on this subject, which will supercede any further notice of it in this connexion.

Guano.-There is one other article which we still have to rely upon, to furnish the anmonia required, none of those alluded to above, supplying it in sufficient quantities to meet the necessities of the crops we usually raise -and that is Peruvian guano. We can only wish that we could obtain a reliable substitute for this fertilizer, for we now have not only to pay the high price formerly charged, but to take an article whose quality is far inferior to what was formerly brought here. The Chincha Islands are becoming exhausted, and the cargoes which have of late been re-ceived, are not only about 1 deficient in the most valuable ingredient (ammonia) in it, but are likewise quite plentifully supplied with small stones gathered from the foundations of the deposits. Another article under the entire control of the Peruvian Government, called the "Guanape," contains as much or more ammonia than the Chincha Island, but is sold for less money, but why this is so, we cannot fully understand. They both average, so we are informed by the Agent of the Peruvian Government in Baltimore, about 13 per cent. animonia. The Chincha Island sells at the Agency for \$57.50 per ton—whilst the Guanape, tho' equally rich in Ammonia and richer in phosphates than the Chincha, sells for \$60 per ton, the ton being 2240 lbs.—both payable in gold, before delivery, and in quantities of not less than 10 tons-therefore the lower the premium on gold the cheaper to the farmer who may use it. Consequently if farmers in a neighborhood who can afford it, or wish to purchase guano, would club together and buy direct from the Peruvian agency, they will save very considerably by the operation.

But what we would commend to them is, that but a small amount of the guano is in reality required for their purposes; the English agriculturists are arriving at this concluslon, and their plan now is, to use but onefourth or one-fifth of guano to three-fourths or four-fifths of phosphate of lime, believing that this will suffice to push the wheat plant ahead through the winter or early spring, the guano giving out its ammonia all the time, so that by the arrival of warm weather the ammonia in the bone dust, (which they almost universally use in preference, we believe, to any other form of applying phosphate of lime,) becomes active, putrefaction in the bones then taking place, so that the wheat plant is ready to be supplied with the food necessary for it, as found in the phosphate of lime—hence the remark, "Peruvian guano for the spring, bone dust for the summer." One peculiarity of the ammonia in fine ground bone is said to be, that it is not as evanescent as is that in the guano; it retains its powers until the heat of the weather and the moisture of the soil opesity of the guano, combining the two great principles in each in a powerful and more

lasting manner.

It will be seen that our object is to commend our readers, 1st, to husband all their resources for making manure on the farm and in their vicinity—and 2dly, to obtain such other articles as contain all the requisite elements to use in connexion therewith, and thus save as far as possible the necessity of purchasing manufactured manures, of the composition of which they have no guaranty beyond that given by the reputation of the makers. While doubtless some of these makers are honest in the preparation of their fertilizers, we cannot in the face of facts produced, shut our eyes to the truth that all do not bear this reputation. What you do buy, get from men whose character for fairness has stood the test of time.

The importation of guanos, we believe, has not been heavy during the last year—the stock of Peruvian on hand is large, however. We do not know what amount, or what varieties of the Phosphatic Guanos have been received—these have been used very largely in the manufacture of superphosphates, and other manures, as have also the South Carolina Phosphates. Some of them contain a large amount of phosphate of lime, by analysis, others also show a small per centage of ammonia.

### PLASTER OF PARIS.

It is a matter of much surprise to us, censidering the small cost of plaster and the advantage arising from its use, that it is not more extensively employed as a dressing for land. Where clover is grown for the purpose of ameliorating the soil, no application, cost considered, can be made with more benefit. The increased product from any soil necessary to pay for the use of gypsum, at \$12 per long ton, is very small, whilst the returns arising from such use are generally so undouted that no consideration of mistaken economy can be urged as a reason for not sowing it.

Upon clover the advantage of its application is most plainly perceived, although, doubtless, grain crops and the other grasses derive much benefit from liberal dressings; and it should be considered that if the increase of the product is perceptible to casual inspection, the return, compared with the cost of the plaster, must be very large. An application of 100 lbs. to the acre, costing say 55 cents, and 20 cents more to apply it, would give a profit of over 100 per cent., at the present price of hay, if the increase in the crop was only 100 lbs.; but an increase of so small an amount would not be easily discerned,

indeed not easily ascertained except by accurate weighing and measuring.

Five or six times the increase named in the crop would be, on most land, a fair estimate of the probable result of such a dressing, and the profit to the farmer would then be, with hay at \$30 a ton, quite one hundred per cent. The difficulty of perceiving comparatively small increments in the crops, although they pay well, has doubtless much to do with the infrequency of the use of this valuable fertilizer. The effects of plaster are lasting, not terminating with the first year of use, and we have seen it asserted that it is so particularly valuable to the second crop of clover, when cut for seed, that the yield has been doubled by a very moderate dressing the spring before cutting.

There is one caution to be regarded in the use of plaster. As with lime, so with it, its employment must not be continuous or repeated without the application of other manures, the best, unquestionably, being that made in the barn-yard. The results attending its use are undoubtedly varied by the dryness or wetness of the season, and it is certainly specially beneficial on some soils above others. As indicated above, the most valuable returns proceed from its use on clover: they are less marked on the small grain crops, but there can be no doubt of its benefit to them as well as to corn and potatoes. There is, however, a great difference between the effect of its application on the same crops, the same season, on different soils. In an experiment made some years ago in England on turnips on soils of a nearly similar quality, only some five miles apart, on one field the crop was doubled, whilst on the other no difference was discern able between the dressed and undressed por-

Why this difference in results—indeed, any explanation at all of its action—is not satisfactorily determined. Different agricultural chemists have each a theory of the mode of its operation, and nothing can be stated to be clearly fixed concerning it. One distinguished professor asserts that plaster is useful only as food for the plants; another that its function is to improve the mechanical condition of the soil; a third claims that it acts only in its capacity as a constituent of plants; others call it the saliva or gastric juice of vegetables; another eminent chemist contends it is a stimulant promoting their circulation; still another

attributes its virtues to its possessing the power of supplying water and carbonic acid to plants; others, of equal authority in chemical science, have no hesitancy in believing its virtues reside in its power of fixing the ammonia in the air, whilst some again argue that it is valuable only as supplying sulphuric acid, which has indeed been shown, when applied in some experiments, to take the place of the plaster. There are still other theories too recondite to be understood by any save those thoroughly versed in chemistry.

Now, to practical agriculturists, who are, or may become fully persuaded of its beneficial effects, it does not much signify, beyond the satisfying of a natural and laudable curiosity as to the nature of its action, which chemical theory is correct. If they are convinced that its application will increase their crops in such proportion as will pay a handsome profit upon the cost of the plaster and for applying it, they are not apt to concern themselves much about the different and divergent hypotheses of chemists.

Of the following facts there can be, we think, no doubt. That in some lands plaster is of more evident benefit than on others; that often where no perceptible effect is seen, the cost of the dressing is more than repaid; that in many cases the return of profit, when sown on clover, is enormous; that it should always be employed on grain crops when clover and grass are seeded with them, and that it should be applied every spring the land remains in grass.

These are the demonstrations of practical experiment, and though they embody nothing new on the subject, they are worthy of being brought at intervals to notice, and deserve the attention, for the coming spring, of all farmers.

# Live Stock Department.

#### Jersey and Alderney Cattle-Their Characteristics and Differences.

The marked attention that has been paid for the last few years to the production of butter and cheese, for home and foreign markets, in the State of New York and in portions of the adjoining State, the great success that has attended the introduction of the factory system of butter and cheese-making, the admitted importance of the dairying business to all the grazing lands in our country, and the great prosperity attending its judicious

management, render it fitting that something should be said regarding the breeds of cattle best adapted to the economical production of milk, butter and cheese.

It is not pretended that it will not cost more to feed a cow that gives thirty quarts of milk a day than one that gives but eight, but as a rule it does not cost more to breed and keep good cattle than poor. A visit of examination to the dairying counties of Orange, Herkimer and Oneida, N. Y., last summer, brought to the notice of the writer the fact, that by accurate measurement, the cows furnishing milk to factories of 1000 cow capacity did not average more than eight quarts a day per cow from the first of April to the first of December. When it is understood that it is the practice of the farmers furnishing milk to the factories to replace the drying-up cows with fresh ones, and that the counties named are admitted to be among the best, if not the best, in the country, the average yield per cow must appear very small and lead to the conclusion that there must be something wrong in the cows. The cows in use in the places visited were natives and grades, not generally bred at home but bought out of droves or picked up where they could be found, and always purchased with the expectation that they would prove good milkers.

I propose to say something regarding cattle bred for their milking qualities, believing they might be introduced with great profit into large dairies, as they certainly have into small

ones

The Jersey and Guernsey cows, it seems to be conceded, give much richer milk than the common or native breeds. The celebrated Hungerford cow imported by J. A. Taintor, of Hartford, Ct., its said to have made a pound of butter from less than four quarts of milk, while the average allowed at the Orange county creameries is a trifle over twelve quarts. If the statement is correct, it speaks well for the Jerseys. I did not see the churning done, but I have seen a great deal of Jersey cream churned, and do not fear to assert that an average herd of Jersey or Alderney cows will produce a pound of butter to every seven quarts of milk, and the butter of the richest color and quality.

The Jersey cattle are now so common that an extended and critical description does not seem necessary. As a rule, the cows are not of a snug, smooth make, still they are beautiful animals, with very large, bright, mild eyes, deer-like head, neck and limbs; with short, small horns, tipped with black, the points inclining inwards; a mealy fringe or mustache around the mouth; thin thighs; good sized stomach; generally pied or spotted, very rarely all of one color and never wholly red, white or black, and the colors on the same animal are generally distinct, not running into each other and forming a roan or brindle. The prevailing color is fawn, or fawn and white. For their size they are not easy keepers, but when acclimated not worse in that regard than natives. As a rule, I should consider

them as large milkers, their size considered, keeping up, when well handled, the flow of milk until near enough the time of calving. With me they excel all other breeds in keeping up the flow of milk in time of drought and on short pastures. It would not be fair to select a few very superior cows of any breed and judge a whole race by them.

It is believed no considerable herd of Guernseys is to be found in this country: it is therefere difficult to fix their value as milkers, compared with the Jerseys, except from what we know of them at home in the island of Guernsey. The cattle imported many years ago by Mr. Nicholas Biddle, of Philadelphia. though called Alderney at the time, were more Guernsey than Alderney, or at least their descendants are. Mr. Swain, of New York, and also Mr. Collamore, of the same place, have imported some Guernseys. They are a good deal larger than the Jerseys and to me appear to come nearer a pure bred species of cattle than any I know except the Devons, being more uniform in color as well as in other respects. One of the striking points about them is the very remarkable breadth of the forehead across the eyes: the horn is slim, but longer than the Jerseys; skin very yellow, and yellow nose; the color very light red, with a little white; they have not the mealy mouth of the Jersey. The size is larger than the average cow, stomach large, good udder, and in all respects of excellent promise as milkers. No good judge of cattle would fail to detect at a glance a wide difference between them and the Jerseys, and still I have one that has taken a first premium at a county fair as an

It is well known that all the Channel Island cattle were at first imported under the general name of Alderney, and it is but lately that any distinction has been made in this country, and so far as regards all the Channel Islands except Guernsey there is no difference. The cattle bred on the two islands of Jersey and Alderney have been kept and bred distinct from those bred on the Island of Guern-

sey for many years.

As I have already said, the cattle imported by Biddle were Guernsey or mixed, while those imported at the same time or later by Taintor, Billings and Norton, of Conn., the Mass. Ag'l Society and Roswell Colt, of Paterson, N. J., were Jerseys, and as good, to say the least, as any that have been imported since. If I were called upon to judge between the Jerseys and the Guernseys from what I have tried and seen, I should give the preference to the Guernseys as milkers, and certainly a decided preference for raising calves for the butcher, and for beef cattle.

The two breeds are sufficiently alike so that no harm could come from crossing, and if some young farmer would select the best animals he could find of each and breed patiently and carefully, I believe the result would be a better breed of cattle than either as we now find them.

Princeton, N. J.

L. E. RICE.

A VALUARLE DISCOVERY IN S. W. VA .-At a meeting of the American Institute Farmer's Club, at N. York, in Decembr, Prof. H. E. Colton presented some specimens of plaster from Southwestern Virginia, and also a lump from Nova Scotia in contrast. He stated that the plaster from Virginia is claimed to be a strictly pure sulphate of lime. The sample presented came from the mines of the Holston Salt Company. They sell it there in lump at \$4 per ton; ground at \$8, and make a fertilizer of one-half salt, one-half plaster at \$14 per ton; and another one half plaster, one-fourth salt, one-fourth wood-ashes, at \$12 per ton. Ten thousand tons of plaster were sold from the mines of this neighborhood last year. Three years ago the trade was unknown. The vein or bed of plaster exists along a section of country many miles in extent. It is sent south and east by the East Tennessee and Virginia Railroad, a branch of that road running parallel with the bed for several miles. The discovery and working of these mines will be found of more value to the people of the South within reach of them, than any gold mine could have been. If not exaggerated, (and there is no reason to suppose it is,) a description of the farm on which this plaster is

found is worth giving:—
"It is owned by Mr. G. W. Palmer, [his present post-office, we regret to say, is not given,]—he was formerly of Syracuse, New York. Mr. Palmer has 11,000 acres of land, about one-half of which is cleared. The peculiarity of the soil of this section is, when the trees are deadened or cut down, blue grass immediately commences to grow, showing that it is indigenous to the soil. Mr. Palmer has 2,400 sheep, Southdown, and that crossed on common; 160 cows, 120 calves, 130 yearlings, and 140 horses and mules. He has 70 of the cows in a dairy farm attended by a man from New York. They make butter the greater part of the year, only making cheese in the midsummer. This year he made 21,000 pounds of cheese, which netted him 15 cents a pound. He furnishes the cows, land, and all buildings, &c., and gives the dairyman half the net price for his labor and his hired The butter sells at 40 to 45 cents per pound at his railroad depot. It is sent all over the South. He furnishes his dairyman and help first-class frame cottages, neatly painted. He generally sows rye to winter his calves, and feeds his cows on turnips, wheat straw steamed and cut up with meal, and on corn-fodder on the stalks spread in a pasture field. He had twenty-six steers fattening for market, and had sold mules at \$125 and \$150. The mules and horses are generally sold at home; the cattle are sent to Baltimore. His sheep average four pounds of wool each: this he sold unwashed in New York at 424 cents per pound. This is not a section where one can live without work, but it is a fine, healthy country, which yields good return for labor, and Mr. Palmer considers it the best country for stock that he ever saw."

# THE AMERICAN FARMERS

## RURAL REGISTER.

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### BALTIMORE, MD., FEBRUARY 1, 1872.

ACKNOWLEDGMEUTS .- We are in receipt, from so many quarters, of kind words of welcome on our re-entrance into the field of our former labors, and of complimentary notices on the appearance of the initial number of our new series, that it is meet we should express the gratification and pleasure they have afforded us. Not only have old personal friends hastened to congratulate us on the resumption of our connection with our old journals, but many with whom we have only had business transactions vie with them in cordial greetings. The press, too, on every side, have pleasant things to say of us and the FARMER. We thought to give some extracts from letters and notices of the press, but decide that though interesting and agreeable to us, the space can be otherwise used to the greater profit of our readers.

We can only say to all that we are sincerely grateful for the kind reception we have met. We will endeavor to make the AMERICAN FARMER worthy of its friends, and to maintain the high character it formerly bore.— Even though we fail in this, we can promise with certainty that we will make it honest, independent and wakeful to the true interests of the farmer.

OUR SUBSCRIPTION LISTS are filling up, not, of course, as rapidly as we should like to see them, (for we would be glad to count the names by tens of thousands.) but every mail brings its quota, and this No. of the Farmer goes to bona-fide subscribers from Massachusetts to Texas.

OUR PRESENT ISSUE approaches more nearly to a favorable specimen of what we want to make the *Farmer* in contents and appearance than did our Jan. No., in which, owing to the space given to articles introductory to its re-appearance, it was impossible to give the variety and amount of matter we desire to present at each monthly visit.

OUR PREMIUMS—In the supplement to our January No. containing our list of premiums for clubs of subscribers, we intimated we would give in this issue a description of many of the articles there offered, but reflecting that all of them are so widely known and of such well-established reputation, we conclude the space the description would occupy can be otherwise more profitably used for our readers' benefit. Should any one want any information or a further description than is given in the list, of any of the premiums offered, we will be very glad to write full particulars.

We take this opportunity of asking our subscribers and friends everywhere to endeavor to enlist for us in their respective neighborhoods some energetic person who will canvass for the Farmer with a view of securing one of these handsome and liberal premiums. There is no competition! Every person gets what he has worked for! Subscribers need not be at one post-office, nor is it necessary the subscriptions should all commence at the same time. The list is open till March 31, but names can be sent, with the exact amount of money, as fast as collected. Remit wherever practicable by draft, post-office order or registered letter.

CLUBS.—Almost immediately after the issue of our January No. we began to receive from friends in various sections clubs of subscribers to the Farmer, and many others notify us of their being engaged in collecting such. To the latter we beg to say we should be glad to have them forward the names as fast as received. The lists can remain open and they

can add other names as they receive them. This will enable us the better to determine the size of our edition to print.

This number, like our first, will be sent to some persons whe have not sent in their names as subscribers, including some whose names we find on the books of the Farmer as last published, but whose subscriptions have expired. We request all such who intend to send their names to do so at once.—This is important to us. Those of the latter class indicated failing to do this will not be considered as subscribers, and no more numbers will be sent them unless their subscriptions are received in proper form.

WE HOPE our friends will not forget our expressed wish to receive from them communications on subjects of general interest .-There is nothing like an interchange of views between practical men in effecting advancement in agricultural practice, and in the words of our correspondent, Mr. Davis, it is the noble nature of the farmer, on making a discovery, to "invite inspection from his neighbors, detail the process, and proclaim the result for common use and adoption." Will our readers maintain the reputation of their class by doing this? It is not necessary they should write eloquently or learnedly. For practical subjects, the style of every-day conversation is most suitable. Remember this, friends, who hesitate about writing for a paper. Give us your experiences, briefly and pointedly. We have a number of correspondents in the present number, to whom we tender our sincere thanks.

Mr. Newton's Second Letter.-Our readers will doubtless peruse, as we have done, with feelings of delight, the chaste effusion from the pen of Mr. Newton, and we feel at liberty to compromise our views upon the "practical," for the reading of his paper proves that he has the power to produce the most practical effects on the mind. Our classical friends will be pleased, we think, to find the ancient motto, the omission of which so grieves our correspondent, replaced, in accordance with his suggestion, on the first page of the Farmer. On resuming the work, we omitted it only after due reflection-and we acknowledge not without regret-conceiving it might be thought inappropriate to the present condition of many husbandmen who consider that their cup of

blessings is not now overflowing—but the views presented by Mr. Newton have overbalanced the conclusions at which our own mind had arrived, and we have determined to replace it.

We congratulate our readers, and ourselves, upon the fact, that this distinguished Virginian announces his determination to become a regular contributor te our pages. We hail this decision with much pleasure, as we are satisfied that there are but few men of his section better calculated to arouse the public mind to a vigorous effort for the improvement of its agriculture, now in so depressed a condition.

OUR AGENCY .- In consequence of the anmouncement of the resumption of this branch of our business, we are at once beginning to receive, in anticipation of the opening spring, inquiries for fertilizers, implements and machinery, and improved stock; and we deem it proper here to state, that we are entirely independent in this matter, and neither directly or indirectly interested in any way with any manufacture of any kind. We will buy for farmers whatever they wish. In the case of fertilizers, if they name the brand they want we will faithfully execute their orders. If a choice is left to us we will exercise our own discretion and do what we think best for the interest of the purchaser. So with machinery and live stock. And this in most cases without charge to the buyer. Let it be understood that in our operations it is our business to represent the buyer. We select the article, attend to its shipment, &c., in his place. It is not our wish to interfere with the business of our Commission Merchants, but many of our friends have no factor in this vicinity, or want articles with which these gentlemen are not familiar. Our object is to aid our agricultural friends, but of course expect to be compensated for our time and labor in so doing.

Pleuro-Pneumonia in Cattle.—We received for our January No. from Mr. John Wilkinson, a gentleman well known in agricultural and rural affairs, a communication concerning this disease, but for which we could not make room in that issue. He informed us that at the time of his writing this contagion had again made its appearance in some herds near Baltimore, and that Dr. Coleman, a veterinary surgeon of this city, of

whose skill Mr. W. spoke in the highest terms, was treating the affected animals, and hoped, by the inoculation of those not attacked, to prevent the spread of the disease—the experience of the Dr. with large herds in Australia having convinced him of the efficiency of inoculation with the virus from sick animals in staying the progress of this fatal disease.

We are glad to learn from Mr. Wilkinson that the disease has entirely disappeared, all the cases referred to having been cured.

COMMODORE MAURY'S PROJECT.—From several sources we have received copies of the Resolutions and Addresses of Com. Maury on the establishment of an international system of meteorological reports and agricultural statistics. The subject is one with which the public generally has become quite familiar, having been widely alluded to and discussed by the local as well as the agricultural press.

It is argued that with the products of the earth the anomaly exists of the buyer coming into market and setting his own price for the commodity he wants. He is himself the collector of information concerning the crops of the world, and this information is easily tinged to suit his purposes. The Commodore contends that by a simple and oft-repeated process of overestimating crops, prices are kept low until the products are out of the hands of the farmer, who then can reap no profit from the rise which so often takes place just too late to benefit the producer. He calculates that the cotton planters of the South alone have lost, in thirty-four years, by this system of over-estimating crops, the value of one and three-fourths of an average crop, and \$375,000,000 in the last six years alone, by fluctuations in prices which could not take place in the presence of the plan which he recommends. He hopes to see the present weather reports change their "probabilities" into certainties, and become of much greater use to the agricultural community. Besides the widest use of the now existing means for carrying out his scheme, he proposes the appointment of crop reporters, not only for America but the whole of the cultivated globe, as far as possible—one for every 10,000 square miles. Each of these will give his attention to the chief staples of his dis-trict, travelling over it and making frequent reports to the Central office. These observations and reports, consolidated and published, would enable the producer to know the condition of the crops everywhere, and their in-fluence upon the markets of the world, thus releasing him from dependence on the scanty and unreliable information gathered by dealers whose reports are colored to suit their own interests. It is suggested that the Government of the United States invite other nations to a conference of leading meteorologists to consider this project and adopt means for its execution.

The Commodore anticipates opposition, and he will probably have it; but if his plan is feasible, and can be put into practical shape and successful operation, he will be entitled to the lasting gratitude of the agriculturists of the world.

COUNTY AGRICULTURAL SOCIETIES.—We have received the following reports of elections of officers. Reports from other Societies and Farmers' Clubs will be inserted as received:

Carroll Co. (Md.) Ag'l Society.—The following officers were elected Jan. 1st, to serve for the year: Augustus Shriver, Pres't; J. Rinchart, Vice Pres't; Wm. A. McKellip, Sec'y; R. Manning, Treas., and E. Lynch, D. Fowble, H. E. Morelock, L. P. Slingluff and J. Schaeffer, Directors. The fair of 1872 will be held at Westminster from Sept. 30th to Oct. 5th, inclusive.

Washington Co. (Md.) Ag'l and Mech'l Asso.—The following is a list of the officers recently elected for the ensuing year: D. Brumbaugh, Pres't; D. Zeller, Vice Pres't; B. F. Fiery, Treas.; Albert Small, Cor. Sec'y; P. A. Witmer, Rec. Sec'y; B. A. Garlinger, Henry Zeller, H. H. Powers, B. F. Byus, D. Startzman, I. Motter, J. R. Adams, J. H. Fiery, J. Middlekauff, J. A. K. Brewer, Directors.—No report made to us of time of holding next fair.

New Periodicals.—We have received the January number of *The Rural Alabamian*, an agricultural monthly, the publication of which has just been commenced at Mobile by C. C. Langdon & Co., at \$2 a year. It is a neat octavo, handsomely printed, and containing much valuable seasonable matter. We wish success to our new cotemporary!

We have also on our table the initial number of The Poultry World, a journal devoted exclusively to poultry, published monthly at Hartford, Connecticut, by Van Benschoten, Stoddard & Lockwood, at \$1 a year. Its mechanical execution is beautiful, and the fancier, the farmer and the largest breeder will find matter in it suited to their respective wants.

PAMPHLETS, &c. RECEIVED.—Report of the Department of Agriculture for November and December, 1871.

The Jersey and Alderney Cow, by Ed. P. P. Fowler, published by J. M. Stoddard & Co., Philadelphia.

The Overland Monthly, published at San Francisco, by J. H. Carmany & Co.

INSPECTION LAWS-Adulteration of Peruvian Guano .- The Maryland Legislature, at its session in 1870, passed a law abolishing all inspections except of tobacco, the law to go into effect 1st May, 1872. The Public Scales, for weighing Cattle and Hay, are continued under the control of the State. In the address of the President of the Corn Exchange. the business men of this city are congratulated on the near approach of the demise of these laws, but an attempt is being made at the present session of the Legislature to continue them, and a strenuous effort will doubtless be made to repeal the law of 1870, as there will be many offices to be filled by the continuance of the inspections. · If, however, the repeal is permitted to stand, there will be found the greater necessity for caution on the part of purchasers of certain manures, for there will be less check to frauds than heretofore, and this is particularly applicable to the highest-priced articles, such as guano. The Agent of the Peruvian Government in Baltimore has just handed us a copy of a pamphlet issued from his office upon the subject of the use of Peruvian guano, in which we find our recommendation to farmers, made on another page, is also urged by the writer. It is advised to "form clubs and purchase the genu ine Peruvian guano [direct from the Agents' warehouse], mixing it to suit themselves, instead of paying others for a vile mixture, with only sufficient good guano to give it something of the odor of the genuine." It is justly added that "the above remarks do not apply to the honest dealers who make their purchases of pure guano, and retail it in the market at a fair profit." We will also quote the recommendation given in the pamphlet alluded to, as in accordance with our own oft-presented views upon the same subject:

"Every farmer who consults his true interest will make and save all the manure he can upon his farm, and supply any deficiency by the purchase and application of the most concentrated manures."

The pamphlet before us contains a statement of Prof. Nesbit, Principal of the Agricultural and Chemical College of Kensington, England, in regard to the adulterations of Peruvian guano in England, which, it is added, "is perfectly applicable to this country." We have space, just now, for little more than an allusion to the statement of Prof. N. He says:

"The want of knowledge among farmers as to the genuineness of the article, and their

manifest reluctance to be at the expense of a chemical analysis, have, together, induced many fraudulent dealers to adulterate this manure, systematically, to a great extent.

\* \* \* If the honest dealer offers a genuine article in the market, upon which he puts only a reasonable profit, and finds that his reguish neighbor can more readily sell an adulterated article, he has no afternative but to abandon the trade or to turn rogue himself. \* \* It is, indeed, scarcely possible to give persons at a distance an idea of the extent to which guano is adulterated."

Prof. Nesbit adds:

"A most extensive and profitable trade is at present carried on by parties who practice the compounding of specious-looking articles to mix with guano; these they supply to dealers in that manure. \* \* \* The materials used to adulterate guano are numerous. Sand, marl, clay, chalk, limestone, brick, tiles, gypsum—ground, when necessary, to a fine powder—constitute the materials for which the farmer is destined to pay fifty or sixty dollars a ton."

Whilst writing the above we received the letter upon another page from an intelligent and very observant planter of South Carolina, upon the Agriculture of that State, and, in connection with his remarks upon the legislative enactments necessary to protect the farmer and planter from the impositions upon them of spurious manures, we would say that the subject has puzzled our legislators for years, and we are, apparently, as far off as ever from a satisfactory solution of the question. An act, we believe, was passed at the last session of our Legislature, requiring manufacturers of manures to stamp their packages with the amount of the valuable constituents contained therein, but it was so framed as to be inoperative, no provision being made, if we remember aright, by which an analysis could be had, except at the expense of the purchaser, and of course but few farmers are disposed to incur this cost and trouble. There ought to be found sufficient wisdom and integrity in our present Legislature, to prepare and pass such a law as is needed, if it is possible to devise one. Our only object in alluding to it in this connection is to say, that with such men in the Senate of Maryland (not wishing to be invidious, however,) as Cols. Stephenson, of Harford. and Earle, of Queen Anne's, a law could be framed to meet the exigencies of the caseas the cry is coming up continually, not only from our own State, but from every quarter of the country, as well as from Europe, that the farmers are most grievously imposed upon in the purchase of commercial manures.

SHEEP AND DOG LAW .- There is a movement being made in our Legislature to amend the law for the protection of Sheep. As it now stands on the statutes, it is applicable to three counties only, and these on the Eastern Shore. The subject we know has been agitating the minds of the farmers of other counties, and the matter discussed at their meetings. We hope that no time will be lost in making known their wishes to their representatives, as their time is limited, and if action is put off till the latter end thereof, it may be found too late to accomplish any good. Such as want their counties included in the law, should make their wishes known forthwith, with any suggestions they may deem suitable for the perfection of the same.

Mr. S. Bentz, of Howard county, Md., has perfected a process in milling by which the outer or woody coat of wheat is removed before grinding, the flour then made from the berry containing a much larger proportion of gluten and the phosphates than are found in the ordinary fine flour, which mainly consists of starch. Besides the family flour, "Gluten Farina" and "Cerealine" are also products of this "unbranning process." Samples of them have been sent us by Mr. B., and upon trial in our household they are declared excellent.

ASHES AND LIME.—We give below an answer of Dr. David Stewart to one of the largest peach, pear and truck growers in the vicinity of Dover, Delaware, who wishes to apply ashes to his orchards, but, not having enough for the purpose, desires to know the effect of combining with them an equal quantity of lime:

"Asles increase the value of lime by admixture, while lime also increases the potency of asles and their solvent power on the plant food in the soil, &c. Three kinds of compost should be recognized, viz: mineral, vegetable

and animal.

"In proportion as the soil is too stiff or too loose, 'green sand' or any other sand or loose material should be preferred to stiff clay, which may otherwise be selected (as in the present instance) to form the basis, and double the proportion of this element to any other ingredient. But it should be used and composted near 'the cultivation.'

"The first stratum of a mineral compost may form a parallelogram 8x14 feet; whereas the next stratum (which we call No. 2) should be of ashes, say 6x12 feet; and No. 3, or the third stratum, of lime, 6x12 feet; No. 4, or

the fourth stratum, of clay, 8x14 feet—again repeating the series in same order to any convenient height. When suffered to leach for several months (as any other compost) cut it down vertically and apply to each tree a shovelful around the stem every year; or divide a shovelful between four hills of corn as a 'top dressing' at any time before July.

"In forming a 'vegetable compost,' substitute peat for lime, using the same formula as for the vegetable compost. In forming an animal compost, add to the peat, or muck, or other vegetable refuse, a stratum of stable manure, with a gaflon of plaster, or some bones or animal refuse. Peruvian guano, if used at all, will pay double in this relation, but old plaster or lime should be confined to the mineral compost, and not mingled with the latter, nor even stratified therewith except for long repose as artificial 'nitre beds.'

Port Penn, Del., Dec. 20th, 1871."

MAKING SUPERPHOSPHATES.—A subscriber writing from Laurel, Del., says he has been trying to make a superphosphate from ground bone treated with sulphuric acid about in the same way directed in the article by Prof. Wilson in our last, but finds that after the bone is treated with the acid the mass is of a wet, tough, sticky character, which he is unable to get dry enough to spread evenly over the land. He added dry earth and plaster of weight equal to the bone, acid and water, but did not succeed in getting it sufficiently dry to use. We submitted the writer's letter to Prof. Wilson, who replies as follows:

"If the gentleman used pure bone and the sulphuric acid was of the proper strength, 66° Baume, the resulting compound ought to be moderately dry, and quite so if he adds muck, ashes or plaster in the proportion of one-third super phosphate to two-thirds of the other material combined. He may have used a weaker acid-it would be well for him to note who the manufacturer of the acid was, and the strength. If the acid was not of proper concentration, and the bone not finely ground, or adulterated, there would be an excess of moisture. The formula I gave was the same I have frequently used and recommended, and has always proved to be satisfactory. We have had, however, during the last few weeks rainy and very damp weather, and as the soluble phosphate of lime has strong hygroscopic properties, the superphosphate in this case may have absorbed mois-ture. It should be well protected from dampness, and if, as soon as the weather clears up, it is opened out for a day or two in a well ventilated building, I think it will dry off, when the other material can be added mixed well and thrown into a pile, until ready for use, when it should be broken down. "As this is the age of deception, particularly in fertilizers and the materials from which they are manufactured, it behooves every one who purchases material for manufacturing them on their farms, to get only the best and purest material from dealers of known integrity. Thousands of tons of worthless material are daily palmed off on the farmer, that have not one cent's worth of value.

P. B. Wilson."

CORRECTION.—In our Jan'y No. in speaking of Prof. P. B. Wilson, Bunsen's name was mis-spelled Busen, and the reading of the paragraph located him at Munich. His laboratory is at Heidelburg.

Country Roads -- One of the greatest grievances that land-holders have to bear is the want of good roads. Taxes are generally high for the very purpose of keeping the county roads in repair, but there is a want of capacity on the part of those who undertake the work to do it systematically, or with any degree of scientific skill. We do not know that we can throw any light upon the subject in the brief space which we can at present spare to it, and we refer to it now to put upon record a hint which we find in the Germantown Telegraph, from Mr. W. Brown, of New Hampshire, which we hope may be taken hold of and improved upon by public-spirited citizens in every locality where there is an opportunity to show humanitarian principles. We will tell it in Mr. Brown's own words:

'A stone which had baffled a number of highway surveyors, being directly in the horse-path, the top being of such a shape that a horse was liable to sustain serious injury, yet no one cared to attempt its removal. great deal of labor was spent in covering it up, but in a short time it would reappear as bad as ever. The land around was underlaid with ledge, and here it came to the surface. Only by great expense it was thought could it be removed. One morning I took a man with me, with powder and drills, and a firm resolution to remove it at any expense. We succeeded in our undertaking. At a cost of eight cen's to the town we removed a boulder of slate stone weighing about five hundred pounds. I give this instance to show how little labor will remove some of the worst obstructions, which have been allowed to remain because no one had attempted removal in good earnest."

A crowbar could be used to advantage in raising a large stone out of the bed of the road, but no one seems to consider it his business to do it; the road-mender never dreams that it is in his contract to attend to it, and, consequently, year after year the stone re-

mains, endangering the lives of passengers by the stumbling of their horses; and the wear and tear to carriage wheels is very serious.

Another very serious grievance is noted by the same writer as prevalent in his Statethat of the running at large of cattle upon the highways. This is a sore evil elsewhere, as farmers in this section can fully prove. All roads are made on land either donated to the public, or sold or condemned for that express purpose, and it has been decided, we believe, in our courts of law, for that purpose onlythe land-holder from whom the body of the road has been taken is still the sole owner of the soil for all other purposes; and, whilst he cannot do aught to interrupt the freest travel upon it, yet any or all other privileges belong to him, and no one has a right to turn their stock upon the road to feed it upon the grass which belongs to another. The evil would not be so grievous were it not for the fact that the cattle, being thus left to roam about, when finding their supplies becoming scanty on the roadside, begin to jump or knock down the fences to get into the more tempting fields before them, while the hogs rooting under the best of post and rail fences, will, in a single day or night, do more harm to the crop than their carcasses are worth.

"A SUBSCRIBER" will find his inquiry concerning plaster answered in the article on that subject on another page.

#### ON THE USE OF MUCK.

In many quarters of the country, there are deposits of muck which, if properly used, can be made the foundation for the manufacture of a valuable manure. It is composed mainly of vegetable matter, but in its normal condition, is not available for the purposes of the farmer, being wet and sour, and it is necessary to subject it to exposure to the atmosphere, to deprive it of the superabundance of water, and give a free passage to the air. deemed not advisable to use muck upon land already rich in, or plentifully supplied with vegetable matter, which is the case when straw manure and grass crops are mixed with the soil, which is not too often the case. The general rule recommended is, to dig the marl from its bed, and deposit it close at hand to go thro' the process above described, by which it is exhausted of the water, and thus rendered less bulky when transferred to the barnyard, or the compost heap. tical farmer in the Utica Herald, alluding to the process just mentioned, gives his experience of the use of muck, to save the labor of extra hauling—he says that he has seen the finest effect in carting wet muck upon the land and mixing it well with the soil, plowing and working the land successively during the summer, the heat and the soil acting upon it, making a fine, mellow and rich condition of the land. This upon clay, with considerable sand and gravel. The crop (of wheat) proved an excellent one: before, the land yielded but little. Several crops were taken with success, but that was the end of it. With more muck applied there would no doubt have been larger and more good crops, just as with barnyard manure. This, then, is the secret with water.

in general.

The same writer believes that whilst there are other uses to which marl can be applied, particularly as an absorbent, they are less paying, as they require more labor, and substitutes may be more cheaply obtained such as chaff, or cut-straw, or even sawdust-but we think that the marl so distributed in the stables or placed in a receptacle where the urine of the cattle can be preserved, will be a more efficient agent in securing and preserving all the valuable properties of the liquids of the stables than either of the other substitutes named. It is admitted that if prepared previously, so as to get rid of the water, and admit the atmosphere, it is a good topdressing for meadows, as it will get down to the soil readily, and lose none of its strength, and it may even be used in preference to the manure from the stables on pastures, as it will not foul the feed as manure from the barn will -this will be the effect particularly on sandy or clay soils.

The farmer alluded to, applies it for pota-toes, particularly when used in connection with ashes, the latter being put in the hill and indeed it is hard to say what crop is not benefitted by it. It is valuable also for its mechanical effects on clay soils. Throughout the region in which the American Farmer circulates, there are many locations where these deposits of muck are to be found, and consequently if properly handled and manipulated, (and now is the season to do it.) a most invaluable manure can be secured without a dollar in cash being expended for it. The toughest and most obdurate clay can, with the addition of the muck, and with the aid of the elements, be reduced and made a most desirable soil. "But it wants the winter with its frosts and rains and snows and the summer with its heat and its showers, aided by mechanical means, to reduce it. Then the land is not only improved, but is nearly all improvement; and muck can not be put to any better use than this-we will say all kinds of muck, some more valuable than others. It will thus be seen how we neglect our advantages by leaving our muck where it is-where it is a damage, a harbor for reptiles, breeding miasma, a trap for cattle, and an eye-sore. To remove it is to clear all this, and to benefit exceedingly the land that needs it, making land, good tillable soil of the spot that held it."

The Importance of Pure, Vital Seed.

Measrs. Editors:—Being desirous to communicate something for the forthcoming number of the resurrected, and judging from the character of your first issue, thoroughly rejuvenated, old standard agricultural journal, that will add to its usefulness to the most numerous class of your readers—practical husbandmen—I have decided that I cannot select a more appropriate topic than that I have taken.

Few know the extent of the loss annually sustained by the furner, by the use of worth-less and impure seed. The valueless seed (both of grain and grass) used is by no means confined to that purchased from seedsmen, for many depend on that of domestic production, which is often as wanting in the qualities of purity and vitality as that obtained through commercial channels. In fact, I am satisfied that the quality of that obtained from domestic sources is often more impure, and equally as wanting in vitality, compared with the commercial.

This I shall explain from data obtained by having observed the careless manner by which both grass seed and seed grain are obtained.

It is not uncommon for farmers to gather and store in stack or barn, an entire crop of grain and to thresh all together, and to draw from the crop a quantity sufficient for their seed, and not unfrequently, less provident, and, if possible, more careless neighbors, obtain their supply from the same him.

tain their supply from the same bin.

When such a course is pursued in obtaining seed grain, portions of it are liable to be unripe, others injured by fermentation in the stack or mow, and the vitality impaired, if not totally destroyed, and again other portions of it are cracked, bruised and mutilated

in the process of threshing.

Seed Grains—how injures in threshing.—As all may not understand how such injuries may be effected in the process of threshing, I may be allowed to explain for the benefit of such.

If the spikes in the "cylinder" are set so closely as to impinge on those in the "bed," the space between them is not sufficient to admit of the kernals of grain passing uninjured, and if fractured the germ is liable to be destroyed.

Dry wheat and rye, and perhaps barley and oats, may also be injured for seed by running the thresher with too great speed. The writer has more than once seen dry wheat threshed in cold weather, and a considerable portion of it was fractured by the excessive speed of

the cylinder.

There is still another mode by which seed grain is injured in threshing. The bearings of the journal of the thresher are allowed to become worn so that the journal has a longitudinal motion, causing the teeth to impinge on either side alternately and thus crushing the grain.

Other losses and injuries in grain by defective or injudicious threshing.—In case grains are fractured in threshing, as I have described, it not only unfits them for the purposes of seed, but it causes great waste of it in the process of fanning or winnowing. That which is crushed finely, will blow over with the chaff, where it is often utterly lost, and larger particles fall through the screen with foul seed. I am satisfied that I have seen a loss of fully four per cent. from these causes. But I have generally found it in the management of that class who stigmatize all writings on agriculture and reading farmers, as "book farmers."

This is the class who "want no science in their "furmin'," and the herculean force of combined science, with a lever that would extend from pole to pole, could not extricate them from the "hub deep" ruts of ignorance in which they have so long wallowed.

Consequences of using such defective seed.—It is utterly impossible for the husbandman to know what portion of such seed will germinate. And it may have sufficient vitality to produce a feeble plant, yet its vigor may have been impaired by any of these causes to that degree, that it is incapable of bearing seed, and blank or barren heads, often seen, are the effect of some of these common causes. Failure in the crop is the natural consequence.

The manner in which the small cereals designed for seed should be harvested and preserved.—If a portion of a crop is to be saved for seed, it should be selected in a growing state in the field. That portion of the crop exhibiting the most luxurious growth, that most cleanly, earliest ripening, with the brightest straw and best-filled heads, should be selected, and be allowed to ripen well before it is cut. Then it should be cut, harvested, stored and threshed by itself.

It should not be threshed from the field, if it has, as is usually the case, to be stored weeks or months before it is sown, for there is a greater proportion of water in the kernel than in the chaff or straw, and by storing the unthreshed grain until it has an opportunity to equalize its moisture, that in the grain will be absorbed by the straw, so that all danger of germination in the threshed grain, during the ordinary period of storage, will be removed, and its native vitality will be fully preserved.

Every operation pertaining to the preparation of the seed, for use and reproduction, should be most carefully and skilfully performed

It may be necessary to cut when moist with dew, to prevent shattering the thoroughly ripe grain, but it should be dry when stored, and be stored under a close roof. All the defects in the thresher and in its operation that I have named, must be carefully guarded against, and the grain should be made perfectly free from the seeds of all noxious weeds which were unavoidably harvested with it.

Storing.—Large bulks of threshed new grain should be avoided in garnering, especially of that designed for seed, for the greater the bulk, the greater the tendency to fermentation. Truly yours, J. WILKINSON,

yours, J. WILKINSON, "Book Farmer," so called.
[To be continued.]

### Agriculture in S. Carolina-Manures.

To a journal bearing the name of the American Furmer, a slight description of the agricultural and planting interest of any section of the country cannot fail to afford interest to every one interested in the general welfare of our common country.

Through South Carolina and Georgia, Cotton is the main crop and support of the planter; and so long as prices keep up to anything like present rates, it will continue to be the main stay, inasmuch as its cultiva-tion is more profitable than any other crop that can be raised. Sound policy seems to demand that a planter should raise his own provisions, and appropriate the surplus labor to the production of Cotton; but circumstances alter cases, and the present high prices for Cotton by demonstrating its cash value to be far greater than that of Corn or Wheat, will probably stimulate an extended area of Cotton to be planted during the coming season; and a decreased area of both Corn and Wheat. The manner in which land is rented and Cotton cultivated, differs considerablyin some cases, but rarely, a money rent per acre is paid; but in the great majority of cases, a share of the crop is given for rent; the share varying according to the barrenness or fertility of the soil.

During the past year, as compared with previous years, a diminished quantity of bought manures was used; and those in this section of country who bought mixed or manipulated manures, found themselves heavy losers by the speculation. Having derived benefit from it in previous years, the past season the manure professing to be the same, proved by results to be quite different. The question naturally arises whether legislative enactments are not called for to protect the In North people from spurious manures. Carolina, I believe the State has passed laws demanding the analysis by the State Chemist or Geologist, of every manure offered for sale; and also exacting bonds from the sellers thereof, to satisfy any claims that may arise from the non-performance of their obligations. Such a law appears to be both just and equi-

In this part the cattle are inferior to those of Maryland. Enough are raised to meet the demand; but the beef not being equal to Kentucky or Tennessee, the best beeves are imported from those States. As regards mules and horses, very few are raised; nearly the whole being imported from the States just named, Kentucky and Tennessee. In this part, many men from the Northern States have bought land with the intention of becoming permanent settlers. In fact any man who comes here to buy land, and to live by honest industry is welcomed as a friend. Men who help to develop the resources of a country are an acquisition to any country, and justly deserve to be welcomed as friends. A. B.

# Morticulture.

### PEACH ORCHARDS.

The opening of railroads throughout the Peninsula of Delaware and the Eastern Shore of Maryland, connecting with the Philadelphia, Wilmington and Baltimore Railroad, and forming almost uninterrupted communication with the Eastern cities, and even with Canada and the other Provinces on our borders, is destined to have an all-powerful influence upon the future of the fertile but much neglected lands of the section indicated. The whole Eastern Shore of Maryland will, in a very few years, become a garden for the early supply of the fruits, large and small, and of the vegetables, of every description, to the country. It is always the ease that the earlier in the spring the vegetable productions can be gotten into market, the higher the price obtained-other colder locations following in due course of time with their quota, and thus keeping up a continuous supply the whole season.

The Peach business has already become immense in Maryland, and it is not only in the trade to the cities that it is extremely valuable, but the canning of these and other fruits and vegetables has created a trade to the far West, which, in connection with the oyster business, has largely increased the commerce

of Baltimore.

Colonel Edward Wilkins, of Kent county, Maryland, is one of the most successful, as well as the most extensive, cultivators of the Peach in the State, and we hoped to have presented in this number a paper from his pen on the mode of culture and the general operations of the business. The following account from the Wilmington (Del.) Commercial, written by a traveller through the Peninsula of a visit to another establishment, in the adjoining county of Queen Anne's, will doubtless be read with interest, as presenting some idea of the nature and extent of this

growing business:

"The 'Round Top' farm is situated in Queen Anne's county, Maryland, on the Chester river. The country has here a fine rolling surface, and the soil is a sandy loam. The present proprietor of the property is John Harris, he having succeeded the firm of Morton & Harris, original owners. The peach orchard is the great feature on the farm. It extends along the river bank for an unbroken stretch of 17 miles, and is a mile deep; 1,013 acres of peaches are here growing and bear-ing in this one orchard. Nine years ago the locality was covered with the native forest. At the time of the visit between five and six hundred hands were employed. All the peaches are put up in cans at an immense establishment for the purpose built on the property; three hundred and fifty women are

employed in paring the fruit and filling the cans; five teams are engaged haulting the fruit from the trees to the building. The quantity put up this year will be about a million caus. The daily work was about 4,000

baskets or 80,000 cans.

The manner of canning is to make syrup composed of 11 pounds of sugar to a gallon of water; keep the syrup boiling; put the fruit in the cans cold; pour in the syrup; solder up tight; then boil the cans for a certain length of time, but how long is reserved as one of the trade secrets of the establishment. The canned peaches are sold principally in Baltimore and Philadelphia. They are worth at present, wholesale, one dollar and fifty-two cents per dozen cans of two pounds each. They have sold as high as two dollars and seventy-five cents per dozen, but this year they are lower, owing to the large crop. Cans holding three pounds sell for one dollar more per dozen. Some portions of the crop are cut into halves, the pits removed, and not peeled; these are used by hotels for making pies, and, of course, come at lower prices.

The girls employed in the cannery came from Philadelphia and Baltimore. They get fifteen cents a basket for peeling and halving the fruit, and make from six to ten dollars a week. Mr. Harris furnishes a large, clean, pleasant boarding house, with sleeping rooms and bedding, and charges two dollars a week for board. The females have a separate building, and the landlady remarked that the girls gave her a great deal of trouble, and, from her experience, she would rather board thirty men than one of those girls."

In connection with this business we would remark that fruit-growing can be undertaken with advantage by the young men of the farm, and by degrees made to include both cultivation and trading. To be sure, there are not many who can expect to attain to a business of the dimensions of Mr. Harris', but a beginning could be made with a very small capital, which, in the course of a few years, will be found profitable, and other branches could by degrees be connected with it. Farmers who have sons with them on the farm could not do a better thing than to encourage their making a beginning in this line. Success is probable, and a vast number of young men of the land could find in it a full reward for all the skill and labor they may bestow upon it. It also presents a field for enterprise and study unsurpassed in its capability for future development: it is constantly growing in extent and importance, and the climate and soil of Maryland, Delaware and Virginia are peculiarly suited for it, with the additional advantage of having all the great markets at command, and easy transhipment afforded, also, to many of the European ports by our numerous steamship

### SEASONABLE HINTS.

At this time of the year in this latitude very little can be done, unless we happen to have exceptional weather, so far as out-door gardening is concerned. If we have strong adhesive land to work, it is a good plan to trench it well at every opportunity during cold weather, being careful to thoroughly break up the bottom of the trench, and to keep the top spit of soil uppermost.

We want deep, thorough cultivation, but we do not want subsoil on the top; this is a matter of more importance than some seem to be aware of. If there be any pruning to do in the orchard, do it at any time when the wood is not frozen. In taking off limbs from trees the proper place to cut them is easily seen. There is a swelling just at the point of union with the tree, cut close to it with a saw and trim off neatly with a good chisel, cover the wound with anything you please or with

nothing.

If there is planting to be done, do it as early as possible and mulch well; we do not attach sufficient importance to mulching as a rule, although some err the other way, they having seen mulch and manure applied side by side in the fall, and seeing but little difference in the effect, have concluded that covering with mulch is equal to a coat of manure; but, in this case we err by applying the manure at an improper scason.—We will have more to say of this in another paper.-We very much prefer to do our planting in November for all deciduous trees and most evergreens; we give some reasons:-there is less hurry, less work on hand; the ground is usually in good condition; if the trees be properly planted and mulched the roots soon commence to take hold of the earth, for "Nature in her sleep is never still;" and in an extensive practice of forest, fruit and ornamental planting we have had much less trouble and more even success, with Fall than with Spring planting; but of course we simply state our own practice, and wish every one to please himself.

Where there is a hot house there is, or ought to be, a gardener who knows his duty, and of course does not need to be told it.

Where there is but one house and all kinds of subjects are crowded together to winter, very little can be done beyond keeping everything clean and healthy as possible, so that cuttings may be had in abundance. It is in every way preferable to keep plants that winter well in such quarters as may be given them, and purchase young thrifty stuff of the other kinds early in the Spring, rather than attempt to drag all through the winter together, crowded out of all health and shape. Such advice as we usually see given, as "water sparingly, syringe occasionally, light your fires early," &c., reads exactly like telling the head of the household department to prepare breakfast, wash up breakfast service, prepare dinner, see that the 1 arlor fire is not

allowed to go out, &c., and might be copied from any of the ten thousand works published during the last two centuries.

Baltimore, Md. N. F. F.

# The Loultry Yard.

### BREEDS OF CHICKENS.

Ever since I was a boy, for I first took the chicken fever when I was about five years old, I have had a hankering after and a warm preference for the Dominique breed, considering them with their speckled plumage, active movements and general piquancy of appearance as the most beautiful and graceful fowl of all. This breed, seemingly lost sight of for some years, and much neglected in the rush and furore of the Asiatic fever, is now once more, upon the simple fact of true merit, claiming the attention of breeders, and I have noticed lately several shipments to Europeto fill orders of some of the most prominent breeders there. Singular to remark, at a sale recently in our own city, of a lot of imported fowls, several trios catalogued and sold as Creele fowls, were unmistakably Dominiques. Size has been the objective point of poultry raisers for years past, and in order to get size all other considerations have been thrown aside-the result is, we see in every poultry yard the huge, ungainly, bobtailed Shanghai, Cochin or Brahma. I consider for delicacy of meat, hardiness, beauty of plumage, number of eggs laid, cost of keeping, freedom from sicknesss or disease and the ability to take care of themselves, that the Dominiques and Games far surpass any other fowls, and that there is really no comparison between them and others. Recollect I profess to state my own opinions and experiences only-not to lay down controversial points with others. Now there is my friend, Major Allison, thinks so highly of the *Houdans*, and has had such success with them, that he has just sent off and got more, at a very high price. He says he intends to cross them into his Brahmas, He says and that he considers this cross even better than either of the original breeds; on the other hand, my sister who has had great success in poultry, is so utterly disgusted with them that she would not have one of the Frenchmen about her yard at any price. confess myself, I would not advise anybody to try the Houdans, and I think you, my dear Editor will, from experience, give the same advice. Mrs. Dr. Thompson, of Warren, says, the cross she recommends is Brahma pullets and Dominique roosters, especially for winter eggs and general hardiness. She speaks highly of the Dominique mixture as an improvement on pure Brahma. If we simply desire to have chickens about the farm, chickens that will give us meat and eggs, we cannot do better than to get some Brahma pullets and let the cock be either Dominique or Game—being particular every two or three years to add some new blood, even if it costs a dollar or two more than you expected, and you should have to dispose of some of your "on hand" lords of the haren to make room for the newcomer, who should be a fellow of muscle and spirit, able to win his way and to hold it. If however, you desire to be fancy, particular, and go for blood, let me recommend Dominique or Game, either of them "a thing of beauty," and calculated to reward the possessor well for the care and attention

given.

The Black Spanish have a great reputation for egg-laying, above all others; indeed their advocates have seemingly taken out a patent for them as egg-producers. Well, some of my neighbors keep Black Spanish, and they send to my house to buy eggs. The Hamburgs are beautiful fowls for a gentleman's yard—but like the *Pclands*—too delicate for successful propagation. What is wanted, is a fowl suitable for the farm, a fowl not raised as a specialty, a fowl that will give the good housewife and womenfolks eggs for baking day, and chickens to send to market for pin money, or that will afford a handsome dish to set before the preacher when he comes along, and for this purpose take Mrs. Thompson's suggestion-Brahma and Dominique-and my word for it, you will hit the nail on the head. Of course, no matter what breed you get, if you neglect them, pay no attention to them, and totally forget them, neither eggs nor chickens will reward you. If a thing is worth doing at all, it is worth doing well and you should therefore STICK TO IT.

CHICKEN CHOLERA.—A lady correspondent communicates the following to the Farmer:

For five years the epidemic called "Chicken Cholera" has been all around and very near us, but my fowls, so far, have escaped. I think it was owing to my practice of having the hen-house cleaned once a week and dry sand spread over the floor and roosts If the weather is wet or freezing and sand not to be had, I use dry coal ashes, which are said to be a disinfectant. The value of the droppings fully repays the labor of cleaning and storing in dry shelter.

During very cold storms I give them hot food—scalded meal alone or mixed with boiled potatoes. I also give them luke warm water to drink. I have read that congestion of the liver causes the disease called "Cholera," and I have noticed that it prevails most in our cold wet storms in Spring, and I then take

particular care of my fowls.

A CONVENTION of delegates representing the interests of the State Agricultural and Horticultural Societies, Boards of Agriculture and Agricultural Colleges of the United States will meet at the city of Washington on Thursday, the 15th inst., to confer upon subjects of mutual interest.

# The Vegetable Garden.

### WORK FOR FEBRUARY.

In the latitude of Maryland little is to be done except by way of preparation for the opening of spring, and the general hints for that are the same as given in January.

Tools are to be sharpened and put in order; Manure to be accumulated in heaps ready for

use.

Hot beds are to be prepared. Directions were given last month for this work. Where early plants are desirable sow Radish, Lettuce and Early Cabbage seed. Also Egg-plants and Tomatoes—but these will have to be transplanted into pots and kept in beds until safe to be planted out.

As the days grow longer and the sun has more power, Cold frames should have more air given them, but look out for sudden changes and cover up well against cold nights.

South of the Potomac, seeds may be sown much earlier, of course, than with us here. Early Beets may be sown as soon as the ground is dry enough to get seed in. Bassano is still a general favorite. Egyptian, which seems to be highly praised everywhere, did very well with us last season. Turnips and Onion seed may be sown as soon as the ground is fit. Early White Dutch is the best turnip for early sowing. Cabbage seed may be sown, where they were neglected in the Fall, in a cold-frame with protection at night, or even in the open ground with a covering of leaves, littery manure, &c. They may be transplanted as soon as hard frosts are over.

Early Peas will do well if afforded some little protection. They are not generally sown early enough. Even in this vicinity by some extra pains-taking they may be much forwarded by sowing towards the end of this month or earlier if the ground is fit. Last year we had peas earlier, by a week, we think, than any of our neighbors, due to the protection afforded at night by placing over the vines boards supported by stones. In the day the boards were placed on edge on the North side

of the rows as a shelter against the cold winds. Parsnips and Salsify should be dug as soon as the ground opens. Rhubarb may be forced by covering with barrels and keeping them surrounded with heating manure. Seeds.—Test your seeds before the time for sowing arrives, that any found worthless may be replaced. Order early what you need from the Seedsman. Poles and Brush for beans and peas should be procured in anticipation of the demand for them; and, in a word, a little thought should be used to forward now as much as possible of the work which opening weather will bring with a rush.

# The Dairy.

Churning.—In the Milch Zeitung, published at Dantzig, Germany, the following conclusions are arrived at from experiments made by Mr. Peterson to determine the causes affecting the yield of butter, viz:—

The churning of whole milk is, as a rule, little known. It is however, often resorted to in Holstein, where cheese is not made. The general mode of procedure is self-evident; instead of being skimmed, when it is ripe enough, the whole of the milk is worked in the churn.

All the experiments I have made to determine which method yields the most butter, have been in favor of churning the whole milk, when other circumstances have been equal.

To obtain the greatest amount of butter, in

churning cream, it is necessary,

1st. To be in a position to control the temperature at all times of the year.

2d. To be able always to perform the skim-

ming at the right time.

3d. Such a daily supply of milk as will yield enough cream to allow it to be churned before its yield of butter is damaged by standing too long.

These conditions can not be complied with in all dairies, and the less so the smaller the establishment. The greater number of dairies depend on three or four cows, and the yield of butter is often considerably lessened by the cream standing too long, owing to the quantity not being sufficient to churn.

In churning whole milk I always proceed as follows: The evening milk of one day and the morning milk of the next are churned together. The former is placed in a tub directly after milking, and the latter added to it the next morning. In summer the milk is allowed to stand, at most, two feet high in the tub; in the winter about 21 feet. In very hot weather the morning milk is cooled down to 16° to 20° R. before it is added to the evening milk. Under these circumstances the milk is nearly always ripe for churning when the evening milk has stood 36 and the morning 24 hours. The temperature of the milk when being churned should be from 1° to 1° R. churning itself should be hurried as little as possible, since the butter globules being more widely separated in milk than in cream, rather more time is needed for them to collect.

In churning whole milk there is an increase in labor, owing to the necessity for more frequent churnings, but this is far outweighed by the other advantages resulting from it.

CORN-FODDER.—The agricultural journals of the North are full of communications attesting the value of this article for Dairy Cows, as especially exhibited during the present scarcity and high price of hay.

### HYGIENE.

PPEVENTION OF A COLD.—As this is the season in which colds are most readily taken. we deem it useful to give our means of avoiding a cold, which we have practiced upon for fifty years. We do not say that the course adopted would effect a cure, or that, in the case of others, it would prevent the taking of one -we only speak of what effect it has had upon our system. In our early days, being impressed with the idea that, as our family was subject to pulmonary diseases, it was neces sary for us to take great care of our health, if we wished to "live long upon the earth" upon which the Lord hath been pleased to place us-consequently, whenever we were exposed to the weather at inclement seasons, and particularly when caught in the rain, our invariable practice has been, before we retired for the night, to have a foot bath as hot as it could be borne, the legs covered over with a blanket whilst the feet were in the water, to retain the full power of the heat and steam upon the We then take a glass of hot herb tea, or (we must acknowledge the corn) a hot whiskey toddy well supplied with nutmeg, or, most generally, and what we deem decidedly the best, and always use in preference to the other drinks named when we had it on hand, a tumbler of Thompsonian composition, which is more searching to the system; and then getting into bed as quickly as possible, adding an additional blanket or quilt to the covering, to assist in getting up a perspiration, and in the morning we have uniformly found that we have escaped from the effects of the wetting of the previous day. This is simple—very—but we have found it a sure means of preserving our health; and, whenever we have neglected this precaution, under the circumstances indicated-which has not been half a dozen times in half a century-we have taken cold, and then we tried other remedies before twenty-four hours had gone over our head, and stayed it at once. If not taken in hand within forty-eight hours, with all the care given to it, it will be more than a week before you can get clear of the cold. "An ounce of prevention is better than a pound of cure," and Dr. Hall, in his Journal of Health, recommends pretty much the same process adopted by us.

A CURE FOR CANCER.—Although many cures for this terrible disease have been published to the world, yet it is doubtful whether any of them has ever been found effective in a well-developed case. Sometimes, however, relief is experienced by remedies recommended, and it may be the case in the one now before us, purporting to come from Mr. J. B. Williams, Health Officer of Alleghany City, Pa.—a gentleman said to be well known in

that community. It is copied from the Pittsburg Commercial, a paper of the highest respectability:

In 1863 a cancer appeared on my left hand. After much suffering, and the failure of all other remedies, I had it burned with caustic. In 1864 it developed in my right arm, being more painful than before. I again applied caustic, and suffered terribly in the operation. It remained checked for awhile, but again broke out in my right hand. Last spring it grew very fast, the hand becoming so help-less that I had to carry it in a sling. I feared my hand would have to be amputated. Having heard that several persons had been cured by drinking wild tea and poulticing with the tea grounds, I began using wild tea in earnest. I drank nothing else at my meals, and in four weeks my hand was as well as ever. I know two persons in Pittsburg who have been cured of cancer within the past few months by drinking wild tea. Wild tea grows in most of the States, and is well known. This remedy should have the widest publicity.'

The wild tea here referred to is said to be quite plentiful in many parts of the country, and is perhaps known to some of our country readers. Is it? We are afraid we perceive an odor of humbuggery about the story!

# Grape Culture.

#### PRUNING GRAPE VINES.

The following article, selected for this journal by a gentleman of great judgment and success in grape growing, will be found reliable and seasonable:

Climate and soil exert a marked effect upon the growth and bearing qualities of the vine, and grape-growers must adapt their methods of treatment and training to suit soil and climate in different localities. It would be wasting time and throwing money away for a grape-grower east of the Rocky Mountains to train vines in the same way that is common among the vine-dressers on the Pacific slope. There, large crops of the best quality of grapes are annually produced by a method of training that neither requires posts nor wire trellis; in fact the young shoots are allowed to sprawl on the ground in every direction without hindrance, and still such is the effect of soil and climate that even with this apparent careless training, young vines eight years old, will yield from 10 to 14 pounds of well-ripened grapes to the vine. Again, in California a cutting is made and at once put in place in the vineyard, while here in the Eastern States the cutting must first be rooted in the nursery row, and then transplanted when one or two years old in permanent place. These different methods are practised in every section of our

country where grapes are grown to any considerable extent, and as a rule experience dictates to the observing cultivator the methods best adapted to the locality. The German and French methods of close planting and close Summer pruning were extensively practised in our early experience of grape-growing in this country. Time and results now fully demonstrate that our native varieties of grapes should be planted for vineyard culture at wider distances than 6x6 or 8x8 to give the best results, and also that close Summer pruning, such as removing all the foliage from two or three eyes beyond the last bunch of fruit, on each shoot, answers but poorly in ripening the fruit; a more liberal allowance of leaves will not only color, but mature the crop earlier in the season and more uniformly than the scanty allowance some vine-dressers are in the habit of leaving on the vines. vine always bears its fruit on the new wood, and, therefore, in order to keep the vines within bounds, so as to have the fruit under the control of the dresser, an annual Winter pruning is positively necessary; no matter how widely grape-growers may differ in the Summer treatment of the vines, all agree upon and practice Winter pruning. The best way to do this will depend altogether on the plan of training adopted. Of late years the "horizontal arm system" has grown popular among grape-growers, and for vineyard or garden culture we like it better than any other plan of training that we have examined. The more simple any method is in training vines the more likely is it to meet the wants of the masses, and for this reason the arm system has given very general satisfaction. very simple; the vine is always under the control of the operator, and the Summer training can be done at less expense than by any other method.

To start right, training should begin when the vine is first set in place. The first year only a single shoot should be permitted to grow. This shoot should be cut back to 3 eyes in the following Winter. The next season two shoots should be allowed to grow, tying them up to a stake during the Summer. In the Fall or Winter the trellis should be put up of wire or thin strips of narrow lath. The posts should thin strips of narrow lath. be well set in the ground, about 16 feet apart, and the first wire fastened on about 20 inches above the surface. This distance, or even a few inches more, may be necessary to prevent the fruit from getting dirty, which it will if the lower wire is close to the surface. In giving the second annual Winter pruning, in case the vines have made a vigorous growth, each shoot may be left some two feet in length, and then the arms are fastened to the lower wire, in the opposite direction-that is, when the vine dresser is standing in front of the vine, the arm on the right should be leaned over and fastened to the left, while that on the left should be taken toward the right. At each annual pruning each of these arms can be increased in length until they stretch 10, 15, or 20 feet, if need be, to fill up the space between the end of the arm of the next vine on the same row. Each eye of these horizontal arms will throw up a shoot, and each of those shoots will produce one, two, or three bunches of grapes. In the Fall or Winter each of those upright shoots is cut back to one or two eyes, and then in the following Spring never more than one shoot should be allowed from each spur. With old vines, growing on arbors, there can be no definite plan adopted; but the person trimming will have to exercise his judgment as to the parts to cut away at the annual pruning. The shoots should be cut back to two or three eyes of well ripened wood. In pruning vines the pruning-knife should always have a keen edge, and the cut made obliquely, and about an inch above the eye. The Winter pruning may be done at any time from 1st Dec. until the middle of February in the Northern and Middle States. When the wood is wanted for making cuttings, the vines should be pruned as soon as possible, the wood made into cuttings, and then tied in bundles and packed away in sand or moss in a cellar, or buried out of doors until Spring.

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To Raise Large Pears.—The following is the method adopted by Mr. G. F. B. Leighton, of Norfolk, Va. an extensive grower of superior Fruits.—One of the editors of the Ohio Farmer, who recently visited Mr. L's. plantation, thus describes his interview with that gentleman:

"He told us that he has now in bearing six thousand trees, the most of them being Bartletts, Louise Bonne de Jersey and Seckel. The soil upon which they are grown is a stiff, blue clay overlaying sand to the depth of three or four feet. In planting out pear trees, Mr. Leighton digs a hole in the clay some two or three feet deep and sufficiently wide for the roots to ramify and then bores a hole with a post auger through to the sand. This auger hole and a small portion of the large excavation is filled with sticks (cut brush); this forms a complete underdrain.

"A soil to set the roots of the trees in is composed of tide washed muck, which is brackish, shell lime and the surface or alluvial earth. The trees grow with wondrous rapidity, and produce such fruit as has astonished fruit growers everywhere. First premiums have been taken far and near at the largest horticultural shows. Duchess d'Angouleme has been shipped to New York this season from Mr. Leighton's orchard weighing over thirty ounces, or about two pounds, forty-eight pears on the average making a bushel. This fruit brought twelve dollars per bushel, just twenty-five cents apiece for the pears. They retailed at fifty cents each upon Broadway.

"Mr. Leighton much prefers the standard to dwarfs and plants his trees twenty-five feet apart each way. In a portion of his orchard he has dwarfs between the rows, but does not allow them to remain long enough to interfere with the standard."

#### LANDSCAPE GARDENING.

Ornamental Planting-List of Evergreens.

From a correspondent of the American Farmer.

As the time for planting evergreens, &c, will soon be at hand, a little gossip may perhaps not be considered out of place. The subject comprises Ornamental Plants and Ornamental Planting.

namental Planting.

In the first we are limited somewhat by climate, but not so in the latter, and yet looking at the manner in which plants, ornamental in themselves, are dotted about, a dozen or more varieties haphazard over an acre or two of ground, one might imagine that a very severe law was in existence to prevent owners from arranging their shrublers.

Whatever the form or extent of the grounds, it should be laid down as a first principle to plant all trees and shrubs in distinct groups. To illustrate my meaning—look at a single Scotch Fir and Norway Spruce, how poor the effect! Look at a clump, if only of three plants, and see how different their appearance! A few trees, shrubs, and plants, evergreen and deciduous, dotted about every where, without order or design, a few beds of the most incongruous shapes cut in the lawn, no regard being paid to the relative position of one to another, nor of a part to the whole; add to this several narrow gravelled walks, cut hither and thither, leading nowhere, with nothing pleasing as a termination, and compelling one to return by the same route, with the impression that notices should be put up requesting visitors not to walk upon the grass, and we have a pretty correct description of the sur-roundings of many of our suburban dwell-

In planting, regard must be had to the purpose in view, whether for shelter, shade, or ornament, and subjects selected accordingly, always bearing in mind the size to which they will ultimately attain, and remembering that too many evergreens near to a house have a sombre appearance, and also that trees which grow higher than a building near to which they are planted, appear to the beholder to detract from its height and size.

We append the names, alphabetically arranged, of some trees and shrubs, which we think are distinct and good, with their native habitat, and descriptive note when necessary:

Abies Excelsa (Norway Spruce)—Native of Europe; will grow in almost any situation. There are several varieties of this in cultivation, but as Excelsa can be kept to almost any height or shape it is not necessary to enumerate them. A. Menziesi (Menzie's Spruce)—California; 50 feet; requires cool and rather heavy soil. A. Morinda (Himalayan Spruce)—The Himalayas; should be planted at great elevations, or in cold, late soils. A. Nigra (Black Spruce)—The coldest regions of North America; 60 feet; boggy and humid localities, or it will be rendered unsightly by red spider. Araucaria Imbricata (Chili Pine)—Chili, 150 feet; I have

seen whole quarters of this Pine uninjured with the thermometer at zero, but would recommend that it be sheltered from cold winds. A. Lanceolata-Australia; 100 feet; requires a sheltered and dry situation. Biota Orientalis (the Chinese Arbor Vitæ)-Japan; 10 feet; an extraordinary and beautiful plant; rather tender. B. Freneloides-Nepal; very distinct and pretty. B. Aurea (the Golden Arbor Vitæ). B. Orientalis Japonica-a dwarf: dense, conical-shaped kind; bright green; very desirable for a lawn; called by the Japanese Isabo-hiba. *C drus Argentea* (Silver Cedar)-Himalayas; 150 feet; one of the most beautiful trees known; requires shelter. Libani (Cedar of Lebanon)-Asia Minor: 80 feet. *Cryptomeria Japonica*, *Viridis* (Japan Cedar)—If well protected from rough winds, it is one of the most beautiful trees known. Cupressus Lambertiana (Lambert's Cypress)— California; 60 feet. U. Lawsoniana (Lawson's Cypress)-California; 100 feet; a most beautiful and graceful tree. Juniperus Canadensis (American Juniper)—Canada; 3 to 5 feet, with an open, spreading head. J. Chinensis (Chinese Juniper)-China and Japan; 30 feet. J. Hibernica (Irish Juniper)—Very close and upright; does best on cool soils. J. Succica (Swedish Juniper)—Sweden; 30 feet. J. Recurva (Indian Juniper)—Nepal; 10 feet; requires a cool situation, where the red spider will not attack it. J. Sabina (Trailing Juniper)—The Alps; low and spreading. J. Sa-bina Variegata (a variegated variety of the preceding)-Does not stand the hot sun well. J. Tamariscifolia—Spain; trailer; very ornamental. Picea Arnabilis (California Fir)— California; 250 feet; a magnificent tree. Grandis (Great Silver Fir)—Fraser's river, California; 280 feet; a majestic tree. P. No-bilis (Noble Fir)—Northern California; 200 the most beautiful of the Fir tribe. Douglas, writing of this, says: "I spent three weeks in a forest composed of this tree, and day by day could not cease to admire it. Nordmanniana (Nordmann's Silver Fir)-Crimean Mountains; very handsome. Pectinata (the Common Silver Fir)-The Alps: P. Pinsapo-Spain; 60 feet; very 130 feet beautiful; should have a place in every collection.

[Continuation in our next.]

### THE HORSE.

The following paper comprises in a nutshell, instructions for the management of that invaluable animal, the Horse. It is by a correspondent of the Turf, Field and Farm :-

Stables are the common abode of the horse. While some of these structures are spacious mansions fit for a prince to dwell in, others are mere dungeons of misery—charnel houses of disease, where life and property hang upon the corrupted atmosphere that surrounds them. Stables require to be well ventilated, light, clean and dry, with large, comfortable stalls for the horse to lie down and rest. Light and air are essential to the health and condition of all horses. Dark, Ill-ventilated stables bring on blindness, glanders, farcy and other diseases that destroy annually many valuable horses. Ground floors have been frequently sub-

stituted for wood or stone for horses to stand They possess advantages in hot, dry weather for keeping the feet moist and preventing puffed legs or contracted heels.

Horses standing upon board floors in hot, dry seasons, should have their feet moistened daily with lukewarm or cold water, to prevent the evil effects of contracted feet and fevered

Working horses that are bad feeders should be often soiled, or mashed out with scalded bran, to prevent constipation, restore the appetite, and preserve condition for future service. Hard work implies hard muscular form, and a healthy state of the internal organs.

Food must be apportioned out to the horse according to the size, and agreeable to the labor required to be performed. Fourteen quarts of oats per day will be quite sufficient for the medium-sized horse in ordinary work. Some proprietors have adopted the rule of allowing the horse from 24 to 3 per cent. of his live weight of good wholesome food every The ox requires | per cent. less; the milch cow 8; sheep require 3 per cent. of their live weight to keep in good condition.

It is economy to feed working horses an ample supply of good food; they cannot continue to perform labor without it. It is cheaper to buy grain than to buy horses. man who stints his workhorse of his daily allowance cheats himself. He gets less present labor, while he unfits him for future use. Colts, when growing, should by all means be fed a bountiful supply of nutritious food. When stunted in growth by starvation they seldom recover from its disastrous effects, or develope into the stately horse. It is when the colt is maturing that we lay the foundation of his future usefulness. Their bones and sinews are composed of the food they eat; their flesh and blood is decomposed vegetable matter. The solid material is formed in the general mass more naturally from the great amount of this deposit contained in the food in the least possible compass. The cereals abound in most of the constituents of bone and muscle.

The dry air, pure water, high, dry pastures, and fine nutritious grasses congenial to this climate, are well adapted to produce muscular fibre and clear wind; add to this a bountiful supply of oats and barley, to refine bone and muscle, and we have all the elements at our command to grow superior cattle. Deep chest, wide nostrils, and good legs are the signs of a

wide nostrils, and good legs are the signs of a stout, hard-bottomed, speedy colt.

The natural powers of the horse are essentially increased by artificial means, through stable management. Clean, dry, warm stables; grooming, fomenting, and rubbing the legs; regular feed and kind treatment, are some of the agents to improve the natural powers of

the horse. Filthy stables engender disease. All uncleanness corrupts the atmosphere that is confined, which destroys the vigor, impairs the health, and exhausts the strength of the subjects confined in these dens of disease.

Glanders were never discovered among wild horses, that breathe the pure air of heaven. Nor does the disease exist among tame horses that are not stabled. It follows as a matter of course that it results from the impure air adulterated in flithy, unventilated stables. Foul air should be cleansed from the stable, and the abode of the horse purified from the noxious gases by the introduction of plenty of fresh air through ventilators. The diluted air will rise agreeable to the laws of Nature, and escape through apertures provided for that purpose.

Horses that have been left idle, or run out to pasture, are not fit for full work till they have been put upon half tasks for a few days, to gradually harden their muscles and season them for a full day's work. To condition a horse for a journey of 300 miles he should be drove ten miles night and morning at the rate of six miles an hour for one week previous to

the start.

When the road horse is hardened by suitable exercise, he will keep in good spirits all day, and be equal to six or seven miles an hour without distress.

There is more excitement in experimenting on the horse than horned cattle. Stockgrowing is more inviting than the dry details of agriculture, or working over dead matter in the shape of manufactures. The adventurer in raising high-bred cattle has a living subject to gratify his curiosity, and testify to his labor and skill. The connoisseur in horseflesh expects to raise a Herzog or Dexter. He will be satisfied with nothing less than a flyer. He has taxed his ingenuity to the utmost to accomplish the object. Though he should fail, and get the flag on the first trial, he will recruit his energies and try it over again on songe other favorite breed. Perseverance may strike a rich vein, and bring forth a wonder.

IMPORTATIONS OF GUANO.—Edw'd Young, Esq., Chief of the Bureau of Statistics of the Treasury Depart'nt, has furnished the American Farmer a statement of the imports of guano into Baltimore for the fiscal year ending June 30, 1871. Of Peruvian there were received 22,079 tons, valued at \$925,637; from all other countries, 4,282 tons, valued at \$141,584. The receipts from American Islands are not included in the second class.

PERCHERONS.—Messrs. M. D. & E. C. Covell, of Delaware, Ohio, have recently imported from France, at a cost of nearly \$4000 per head, five fine stallions of the above breed, which weigh, on an average, 1800 lbs. apiece.

# The Lireside.

### THE COUNTRY LIFE.

BY R. H. STODDARD.

Not what we would, but what we must,
Makes up the sum of living;
Heaven is bo h more and less than just
In taking and in giving.
Swords cleavs to hands that sought the plough,
And laurels miss the soldier's brow.

Me whom the city holds, whore feet Have worn its stony highways, Familiar with its loneliest street— Its ways were never my ways, My c adic was beside the sea, And there, I hope, my grave will be.

Old homestea!!—in that old, gray town,
Thy vane is seaward blowing;
Thy slip of ga den stretches down
To where the tide is flowing:
Below they lie, the'r salls all furled,
The ships that go about the world.

Dearer that little country house, Inland, with pines beside it: Some peach trees, with unfruitful boughs, A well, with weeds beside it; No flowers, or only such as rise Self-sown—poor things!—which all despise.

Dear country home! can I forget
The least of thy sweet trifies?
The window vines that clamber yet,
Whose bloom the bee still trifies?
The roadside blackberries growing ripe,
And in the woods the Indian pipe?

Happy the man who tills the field, Content with rustle labor; Earth does to him her fulness yield, Hap what may to his neighbor. Well das, sound nights—oh! can there be A life more rational and free?

Dear country life of child and man! For both, the best and strongest, That with the enrilest race began, And has outlived the longest; Their cities perished long ago; Who the first farmers were we know.

Perhaps our Babels too will fall, If so, no lamentations.
For Mother Earth will shelter all, And feed the unborn nations!
Yes, and the awords that menace now, Will then be beaten to the plough.

#### Cheerfulness in the Household.

Every evening, when the sun sinks in the west, and the light of lamps or gas is needed to enable us to continue our employments, hundreds of thousands of busy men cease from labor and turn their steps homeward. To the women of the family, this return of father, husband or brother is one of the events of the day; but how diverse the influence these workers bring with them, and how varied the reception with which they are met! If it were possible to lay aside business annoyances with our hats and coats when we enter our homes, how we would rejoice to be within that charmed enclosure. And yet thus it should be. Life is a battle, of course, and those who bear

their part in it must expect to give and receive blows; but even professional soldiers do not fight without cessation, and the doughtiest warrior must have some breathing-spell when he can lay aside his armor. Home may be made a sanctuary, to which we can flee when sorely pressed by the rude assaults of trouble and disaster, and from which we may issue refreshed and strengthened; but it is too often

just the opposite.

When John arrives at home he expects his dinner at once, and a good one, too; for has he not been working all day to earn money to pay the bills? As he is tired and hungry, he has no pleasant word for any body, but if the food is underdone, or overdone, does not suit his taste, or is lacking in quantity, how he does scold! Susan, for her part, has had a hard day of it. The baby kept her awake a good deal last night, and has been very fretful during the day, refusing to be quiet unless on mother's knee. Like many American women, she is excessively nervous, and after such a trying day as she has passed, John's indiffer-ence and scolding are a little more than she can stand. So she answers him sharply, word for word, and the result of the angry contest is, that each passes a dreary evening, and finally they retire to rest wondering why the world is so full of trouble, and why they were such fools as to get married.

There are, however, other people who live very differently. Harry means to extract happiness from life, and does. He likes a good meal as well as any body, but he is as reasonable before breakfast as he is after it: and if perchance his dinner is not to his liking, he does not vent his spleen on Jane, his wife. He carries sunshine with him wherever he goes; and as he always tries to make the best of circumstances, he is welcome wherever he goes, and nowhere more so than in his own Would there were more like him, so that there might be less sad-eyed women and more cheerful, sweet tempered wives: that there might be fewer men who prefer the club, the counting-room, or almost any place to their own homes, so called. It would perhaps be unfair to select any class of men or women as particularly neglecting cheerfulness at home, and yet we think farmers, as a class, fall to appreciate its importance. They have their frolics and enjoyments, to be sure, but the average American farmer is hardly to be called a jolly or even cheerful personage. In the busy season, he rises with the lark, trudges all day as faithfully and often more laboriously than his team, so that when night comes, all the snap and spring is out of him. not make any effort to interest his wife in conversation at meal-times, nor she him; and if, when the day is over, she has any troubles to talk over, he is too tired to be very sympathetic and attentive, So they plod along living a humdrum sort of life, which their bright children mentally resolve to avoid by going to the city. All larmers, it is true, do not live so, but many of them do, and that is one reason why so many farmers' wives break

down. They have too much work and too little cheerfulness, and it is more than they or

anybody else can stand.

A cheerful household, however, is peculiar neither to the city nor country. It is found where those who reside beneath the same roof recognize the obligation of each to contribute to the happiness of all the rest, and where love is the ruling spirit. A determined effort, coupled with much forbearance, is necessary to produce this result; but when once it has been attained, it will well repay every effort, and the home thus graced by cheerfulness and love will ever be cherished as indeed "the dearest spot on earth."

True devotion does not consist in a long face, regulation sighs, and penitent words; it consists in devout deeds, in charitable works, in a sweet, tender, elevated, pure life that influences and betters every one who inhales the same atmosphere.

Being positive in judgment to-day is no proof that we shall not be of a different opinion to-morrow.

PROCESS OF GERMINATION .- Not very many of those, perhaps, who have all their lives been engaged in the sowing and reaping of grain and the other products of the earth, have often been attracted to the consideration of the modus operandi, by which Nature is doing her work in the germination of the seed sown, and in the progress of the plant to maturity. An eminent writer upon the subject, in speaking of the action of the Sun in this great work of germination, remarks:

"Upon the chemical influence of the sun's rays depends the germination of seeds as well as the growth of the plants. We bury the seed in the ground and shut it out from the influence of light, but we do not place it beyond the reach of the sun's actinic influence, for that penetrates like heat to the little earthy couch where the embryo plant lies hid, and arouses it into life. Light, or the luminiferous rays of the sun, so important to the well being of the plant, is actually inimical to the excitation of vitality in the seed. How singular is this fact! A series of carefully conducted experiments have proved that seeds will not germinate in light although supplied with heat, and moisture, when the actinic rays are cut off. Deprived of the luminous rays with the actinic in full force, they spring into life with great rapidity. Seeds sown upon the surface of the earth will scarcely germinate, as soil cultivators very well know, and, on the other hand, seeds buried so deep that the actinic rays cannot reach them will certainly perish. The planting of seeds so as to secure the proper distance below the surface, is a most important point in husbandry, as it has much to do with the early starting of the plant and the success of the

## The florist.

Floriculture, &c.-February, 1872. By W. D. BRACKENRIDGE, Floriet and Narseryman, Govanstown, Baltimore county, Md.

The cultivation of plants under glass, being entirely artificial, therefore a careful study of the habits and wants of each individual is necessary, some having smooth, entire, glossy, membranaceous leaves—delighting in a humid and particularly shaded situation; while there is a second class, embracing many forms, some having narrow lance leaves, approaching to needle-shaped; others again are much divided, some smooth and fleshy, having their upper surface beset with hairs, which often are so dense as to form a close felting of down; this second class delight in a situation that the sun's rays can easily reach, and as a general rule do not require so much moisture for their support as the first series. In both of the similarity of outline or habit must prevail; possessing a stiff appearance, resembling somewhat a prim, conceited bachelor, fresh from the hands of the barber; others again presenting a graceful outline—by bending their delicate spray forward-so inviting as to all but ask you to admire them. Now to arrange in a Greenbouse or Conservatory a collection of plants so heterogeneous in form and varied in the tints of their flowers, so as to secure harmony and present a pleasing effect, requires more skill and taste than most persons are aware of; the usual and somewhat stereotyped way of going about this is, when the stage or table slopes somewhat parallel with the roof, to begin placing the tallest plants behind, grading them down according to height towards the passage, no matter what the habit or color of the article may be; a stiff specimen of a Cactus will be placed alongside of a graceful Adiantum, while a white Japonica will be made to face up to a common scarlet Geranium; so that by such an arrangement, it is thought, the greater the contrast the more heightened the effect produced. It will be seen at a glance that there can be nothing artistic in this display. We believe in the grouping or massing system—that is, in bringing together plants allied in habit and color of flower, causing the groups to blend softly into each other. while the surface outline of such groups can be varied from a concave to a convex form, thus affording shade to some and light to others that require it; in other words, the inside fixing of a private Conservatory should have removed from it that mercantile appearance which they now so often present; and, tending to this end, a fountain containing gold fish and aquatic plants, with a jet in the centre and a rock-work around the margin, where delicate ferns and other grove plants could luxuriate—by grove plants we mean such as Lysimachia numularia, called by some Money-wort; Mitchella repens, a charming

little evergreen creeper, which abounds in our wood; also Fices repens, and other gems of that character; and then the exhalations from such a fountain or tank softens an atmosphere become indurated by fire heat; in addition, the hanging basket and rustic basket on stands could be introduced to great advantage, from the sides of which delicate Creepers could depend, the surface of the basket being filled with Crocus, Early Dwarf Tulips, Hyacinths, and other bulbous roots, using as a green to cover the surface the dwarf clubmoss; and if our friends will only try to get up such baskets, we feel certain that satisfaction will follow. Similar baskets to these, in combination with grottoes and dells bespangled with flowers, are what gives the Winter Gardens of Germany such an enchanting and dazzling appearance under the influence of gaslight.

Work to be done in the greeenhouse during the month will consist principally in transferring into pots, young stock lately raised from seeds and cuttings; the hard-wooded and deficate rooted sorts will require more drainage than the free growing kinds—such as Verbenas, Phloxes, Geraniums, Mignonette and Eupatoriums; these latter are often grown without any drainage at all, therefore under such circumstances less water is required; as a general rule, all plants intended for bedding out, should be kept near the glass, to prevent them becoming etiolated-weak in the stem. Observe to shift into larger pots all that require it before the roots become matted, and plants stunted.

Hard wooded genera-as Acacia, Epacris, Diosma, Azalea and Chorozemias, that were shifted in August and September, and are now about to flower, should be carefully examined so that they do not suffer for want of water, as it frequently happens that the surface of the ball appears wet, while beneath, where the the most of the roots are, it will often be found as dry as powder; therefore, give water enough to penetrate to the bottom of the whole mass; and at this point we remind our readers that it requires more knowledge to know how much water, and when to give it, than any other operation in the whole of plant culture; and it very often happens, in the case of Camellias about to bloom, that they cast their buds prematurely for want of a copious supply of water, and the temperature being kept too high.

Cuttings of soft-wooded plants root freely at this season, if set in sand and placed on a shelf in a warm part of the house, or in a hot-bed, and with proper attention good plants

may be raised, fit for bedding out next May.

Bulbs and tubers of Glozinia, Gesneria,
Lilium, Achimenes, Caladium, Armaryllis, and similarly organized plants, should be freed of the old earth and repotted in a compost of a light rich consistency, observing to drain the pots well, after which place them in a gentle bottom heat, giving water very sparingly, until such times as they start into growth.

Old plants of Fuschias, Sweet Versena and

Lantanas that have been sheltered under the greenhouse stage, or in the cellar, should now be pruned into shape by cutting the old head well back, placing them afterwards in a situation where they can receive light, heat and water, and, so soon as they start to grow, shift into fresh compost, using pots one or two sizes smaller than that in which they

bloomed last season.

Sow in boxes, or seed pans, Mignonette, Petunias, Sweet Alyssum, Gilyflowers, Verbenas, Scarlet Geraniums, Phlox Drummondii. To kill the Aphis, or Green Fly, give fumigations of tobacco-stems, but do not give over-doses of smoke at one time, as the leaves and flowers of delicate plants would get scorched thereby; rather give two moderate fumigations in two successive evenings.

### Flower Garden and Pleasure Grounds.

Attached to all Flower Gardens worthy of the name, a dry and well-sheltered spot, fronting the south, should be selected, in which hot and cold beds covered with glass can be placed; in these beds there can be wintered with safety such plants as Carnations, Nierembergias, Violets (both Sweet-Scented and Tricolor), Verbenus and Feverfews. Towards the end of the month make up a bed of oak leaves and fresh stable manure, well mixed together, and about two or three feet high; on this place a box and sash, and, so soon as the heat moderates, cover the whole surface four or five inches thick with rich light earth; on this sow in broad rows Perennial Phlozes and Larkspurs, Hollyhocks, with such biennial and annual plants as may be wanted to stock the garden the coming summer. At the same time prepare a cold bed, and into this frame can be pricked out the plants raised in the first one; this transfer will greatly strengthen them before removing to the open grounds. To protect such frames in cold weather there should be provided for each sash a wood cover or strong straw mat, and if you are troubled with mice, treat them at first with a little well-dried corn meal; in giving the second dose, rub a few grains of arsenic into the mess, observing to place water where they may sip it; do this right, and they will not trouble you any more.

We stated last month the propriety of turning up all flower-beds and borders to be acted on by the weather, and if this has not been done, it ought to be finished without delay. And we suggest the setting about trimming had we suggest the setting about that bloom on the young wood of last year, viz: Spiras Prunifolia, Mock Orange, Forsythia, Lilac, dc. dc. These we prune in summer immediately after they have done flowering. In performing this work we use a good strong knife in preference to shears, the latter leaving much of the old useless wood behind, and causing the bush to present a mop-ish appearance; the more severely shrubs are cut back, so much the stronger will be the wood thrown out, and the finer

the flowers produced. We seldom prune our oses in this latitude before the beginning of March, but farther South this operation will have to be attended to during the latter end of the present month. The kinds known as Teas, China, Bourbon and Hybrid Perpetuals we find to bloom better and grow stronger when pruned close, and this we perform on what we would call the "renewal system" that is, to thin out freely the old wood, and shorten well back the young shoots of last With the strong-growing varieties of vear. Noisettes, Mosses and Prairie Roses we thin out moderately, and leave the young shoots longer. All Roses require a deep, rich, well-drained soil, which should be manured annually; we have always thought that the culture of the Rose does not receive that attention which it so richly deserves, for, in our estimation, it may well' be designated the "Queen of the Garden.

Should the grass-plat or lawn have become bare of grass, from drought or other causes, then top-dress with a compost of mellow earth and wood ashes; and if near the Ocean, where seaweed-or wrack, as it is sometimes called—is to be had, this forms a good ferti-lizer, causing the grass to start early in spring.

Making new Roads and Walks, and repairing old ones, is very proper work to be done at this season of the year. In the making of new roads, depth enough of carth should be taken out to admit of a good layer of small or broken stones at the bottom, before gravel is put on, and the latter should contain clayey particles enough to bind the whole together, as the roller passes over it, for nothing is more disagreeable to walk upon than gravel when it slips from under the foot; all roads and walks should be well drained, making the centre several inches higher than the sides, so that water can pass freely into the side gutters; the width proper for a carriage road depends entirely on the size of the place it traverses and the amount of travel over it; for an ordinary suburban residence fifteen feet would be enough, as on this two carriages could pass each other safely; and on a walk four feet wide two people could walk arm in arm, or pass each other easily without going on the grass. By this, it will be observed, we give ample space for all that we require our road to carry; and this leads us to remark that a grand mistake in many instances has been committed in leaving many of our public thoroughfares and Park drives too narrow for the safety of the numerous crowds who have to pass along them. W. D. B.

OUR CORRESPONDENTS .- We have received too late for this No., a list of Fruits adapted to Maryland and more Southern latitudes, prepared at our suggestion by W. D. Brackenridge, Esq.-Also, from "A Spectator" of S. Carolina, a communication urging the importance of a wide circulation being given to agricultural literature, for the benefit of the rising generation.

We have no room for an answer this month to an inquiry as to the comparative value of Ashes from sound wood and from spent tanbark.

A portrait of one of the fine Short-Horns of C. E. Coffin, Esq., of Md., intended for this issue, is reluctantly omitted. Mr. C. has promised us a paper on this breed of cattle, which we should be glad to receive in time to accompany this portrait of one of his own herd.

A paper on the cultivation of Fruit, as practiced on the Eastern Shore of Maryland, is promised us by Gen. Tench Tilghman, of Talbot Co., formerly President of the U. S. Agricultural Society.

We had hoped to accompany the interesting communication of Mr. Rice on Jerseys and Guernseys with a portrait of one of the celebrated herd of Mr. Sharpless, of Philadelphia, but it did not reach us in time from the engraver's hands.

We have been favored with a copy of a report made by a committee appointed by a very enlightened farmers' club of N. Jersey, to visit and inspect the cheese and butter factories of the most celebrated districts of N. Y., and we expect to make liberal extracts from it for the benefit of our readers who are interested in the subject.

PERSONAL.-We have elsewhere tendered our acknowledgments to those friends who have so cordially congratulated us on again ascending the Editorial tripod, but we cannot feel our conscience at ease in passing over two of our ancient friends without a more especial notice, and we are at liberty to single them out, from the respect due to their age and the steadfast friendship which for so long a period they have borne to our Senior. One of them, Col. H. G. S. Key, of St. Mary's Co., Md., now in his 83d year, hearing of our intention to resume the Farmer, congratulated us in the most hearty manner and took the trouble to select for us a canvasser in his vicinity, who has already secured us a very respectable list of subscribers. We had the pleasure some months since of meeting with the Col., and were rejoiced to find him still full of vigor and blessed with all that cheerfulness of disposition for which he was ever distinguished.

Mr. James Gowan, of Philadelphia, one of the most eminent agriculturists of the North, seeing the announcement of our intention to revive this journal, immediately sent us on his subscription, adding the most kindly salutations, and remarking at the same time that he had not, since the commencement of the late war, read an agricultural paper, but that be had often thought of us, and "regarded us as the true friend of Agriculture." Mr. G., from our recollections of by-gone days, when we enjoyed the pleasure of his visits to this city, must be now not far behind Col. Key in point of age. May they both live many years longer-as long as life keeps its zest to them -is our sincere prayer.

THE GUNPOWDER AGRICULTURAL CLUB, of Baltimore Co., held its regular monthly meeting on the 18th ult., at the residence of Talbot Gorsuch, Esq., one of its members. We attended the meeting by invitation, and, as we always are, were much pleased with the discussion, the topic for the occasion being "the best manner of saving, making and applying manures," in which a very great diversity of opinion, and mode of operation, was manifested. We were called upon, and gave our views upon the subject, which were, in general, those ventilated through the pages of the Farmer. Our space for the month is, at this writing, more than filled, and we are therefore compelled to omit some remarks we would be glad to make upon what we heard and saw; more particularly a description of some well arranged outbuildings lately erected. which were planned by the host in the most convenient and economical manner.

The Club unanimously requested the Baltimore Co. delegation to further the enactment of a Sheep and Dog law by the present legislature, and the Secretary was directed to forward their memorial to that body. The Treasurer was ordered to subscribe and pay for the American Furmer, for one year, for each member thereof. Several of our manufacturers were present by invitation, and it is probable that during the present year, trials of implements and machinery will take place under the auspices of the Club, particularly of Reapers and Mowers, and Ploughs.

. In our next will appear a description and engraving of the Young America Harvester, which cuts, threshes, cleans and sacks the grain at one operation.

## The Apiary.

(For the American Farmer.)

### HINTS TO BEE KEEPERS.

At this season it is important to often examine your bees, wintered out doors, and see that the openings for ventilation and entrance do not become closed from an accumulation of comb cuttings or dead bees, a single excessively cold night being liable to freeze the mass solid, and prevent the ingress of fresh air—the suffocation of the bees thereby being

the almost certain result.

Bees should also be examined as soon as the weather becomes of any settled warmth, regarding the supply of stores on hand to last until the supply from spring flowers relieves the bee-keeper from anxiety on that score. Any stock found short of sufficient stores should at once be fed daily, being careful not to feed too much, and to so feed that robbers will not be attracted. A quarter to half a pound is sufficient to feed for any one day. Having commenced feeding, the same must be continued until the spring harvest, otherwise the bees will commence destroying and carrying out their brood upon feeding ceasing.

Hives for the coming season's operations should at once be made and painted, being careful to vary the color as much as convenient that no two hives standing near each other shall be the same color. Those using the beegum or box hive, who desire to advance or improve in bee-keeping, should immediately investigate the subject of movable frame hives, and so far as possible examine the claims of the various kinds offered to the public. In doing so though, be careful to look upon all who claim any moth-proof device or trap as a humbug, designed to catch the uninformed or unwary. I do not hesitate to declare that the moth trap and moth-proof hive venders have been and are a greater injury to successful and improved bee-keeping than all the moth-millers in the United States. The requisites of a good hive are, simplicity and economy of construction, facility of handling, utility for summer and winter use, and necessary spaces for breeding and storing of surplus honey in good and readily disposible shape. As soon as a hive to suit your requirements has been selected, make as many as you will need, and as soon as good spring weather arrives, transfer your stocks thereto. A single season will convince any one of the benefit of the change.

To Postmasters.—We ask country postmasters to use some exertions to secure us clubs at their respective offices. Profitable returns may be had in our premiums, to say nothing of the increase in the receipts of their offices. A reading community makes business. Any numbers, which may happen to be uncilled for, can be used in any way they may desire to effect the purpose indicated.

### DOMESTIC RECIPES.

CORNMEAL PUDDING.—Although simple, it is yet very palatable. Stir into a quart of boiling milk the yolks of two eggs, three heaping spoonfuls of meal and a half a cup of sugar, well beaten together. Cook five minutes, stirring constantly; remove from the fire, and add the whites, beaten to a stiff froth. Pour into a pudding dish, and bake one hour in a moderate oven. Serve with cream and sugar.

QUICK MUFFINS.—Two teacups of buttermilk, one of thick cream, or if none, three even tablespoonfuls of melted butter, four eggs, half a teaspoonful of soda; thicken with

prepared flour as thick as waffles.

Soda Biscuit.—One pint of rich buttermilk, one spoonful lard, one teaspoon salt, one teaspoon scda, and as much flour as you can stir in well with a spoon. Buke in little patty-

pans.

Baked Apple Dumplings.—Choose large Russett or sour apples that cook tender; peel and quarter them, take out the cores, and use one apple to a dumpling. Pinch your piecrust well, grease your pie-pan, set your dumplings right side up; do not let them touch each other; set them in your oven, and bake a delicate brown. Eat hot with any sauce you prefer.

SOFT GINGERBREAD.—One cup molasses, one cup sour cream, one egg, one teaspoonful soda, one tablespoonful ginger, flour to make

a pretty stiff batter.

A GOOD BREAKFAST DISH.—Four eggs, three-quarters pint of new milk, and a piece of butter the size of a walnut; salt and peper to suit the taste. Beat the eggs, add the milk and butter, and pour all together into a hot frying-pan containing half a spoonful of fryings. Stir constantly for three or four minutes, when it will be ready for the table. Quite a nice flavor is obtained by making it after frying ham or fresh sausages.

This recipe will make enough for six or eight persons, and in these times, when eggs are so scarce and are sold at such exorbitant prices, it is quite an economical dish, as it will

often answer in their stead.

MCCπ MINCE PIE.—Four cups bread cruml s or apples, three eggs, one-half pound raisins, one-half pound currants, one cup of vinegar, one cup sugar, one cup molasses, one tenspoon soda, four cups water; spice to taste. Try it.

CHEAP PUMPKIN PIE.—Stew your pumpkin and mash through the colander; and for three pies, take one pint of milk, one-half pound sugar, three teaspoonfuls flour, spice to taste. As eggs are so high in winter I call this an economical receipt, and hope our ladyreaders will be pleased with it.

A GOOD PUDDING.—Take a piece of beef and chip it fine, take some onlons and chip them fine, season with pepper and salt, grate some hard bread, mix them together with the white of an egg, make balls, then dip them into the yolk of the eggs and fry them in butter; lard will do, but butter is better.

### The Delaware Poultry Society's Show.

We were present for an hour or two of one day last month at the Show of the above Association, held at Wilmington, and were glad to find the little Diamond State could get up so creditable an exhibition. The entries were not very numerous, and, although competition was open, as the Society's circular modestly stated, to "the whole world," were mostly by local breeders. The excellence of the birds made up, however, for any deficiency in number.

The display of Brahmas, both Light and Dark, was exceedingly good, of Cochins unusually so, and of Dominiques (that valuable but often neglected breed) far better than many a much larger show could boast. The show of Pigeons was finer than we ever saw, and it was claimed to be the best ever made in this country, except at an exclusive pigeon exhibition.

The proximity of the show to Philadelphia ought to have secured, we should have thought, many entries of birds from that city, but two or three exhibitors, at most, were all we noted from there. The judges, however, were nearly all selected from the breeders of the Quaker City, and included the well-known names of D. W. Herstine, S. J. Sharpless, L, Wistar, J. M. Wade and others. The prizes were liberal, those of the first class consisting of cash, and the others of poultry books or subscriptions to poultry or agricultural journals. Financially, we were glad to be informed by the officers of the Society, the show was moderately successful. Below we give a list of some of the prizes:

Light Brahmas (over 1 year), 1st and 2d prizes, W. H. Churchman, Wilmington, Del-Light Brahmas (under 1 year), 1st and 3d prizes, W. H. Churchman; 2d, Nevins & Darlington, Philadelphia.

In Dark Brahmas (both of classes over and under 1 year), all the prizes to W. H. Churchman.

Buff Cochins (over 1 year), B. and J. Peters, Christiana, Del. [The cock was a splendid specimen, imported by Mr. Sharpless, of Philadelphia.]

Buff Vochins (under 1 year), 1st and 3d, W. H. Churchman; 2d, E. R. Wilson, Newark,

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Partridge and White Cochins—All the honors (save one) to Mr Churchman.

First prize each in Grey and White Dorkings, Golden Spangled Hamburgs, Bluck Spanish, Golden Spangled, Silver Spangled, and White Crested Black Polands, to R. M. Griffith, Wilmington, Del. White Leghorns, 1st and 3d, E. R. Wilson; 2d, A. R. Tatnall, Wilmington.

Dominiques (14 entries), 1st and 3d prizes, Thomas Mayne; 2d, Wm. Mayne.

Games—Brown Reds, Pile, Grey, Top-Knot, Rose-Combed Muffled, and Black Spangled, 1st on all to J. Bowers, Wilmington, Del. Houdans, 1st and 3d, H. Morrison, Brandy-

Houdans, 1st and 3d, H. Morrison, Brandywine Banks, Del.; 2d, G. Studley, Claverack, New Jersey.

Messrs. Churchman and Griffith divided honors on pigeons—the latter receiving the special premium for the best collection.

The special prize for the most varied and most valuable collection of poultry was awarded Mr. Churchman.

We regret our space does not permit us to give the awards more in detail.

### Pennsylvania Fruit-Growers Convention.

Philadelphia and its vicinity, occupying probably a more advanced position in horticulture than almost any other locality in the country, one of the editors of the American Farmer attended the above named meeting held there on 17th and 18th January, in the hope of gaining useful information to record for the benefit of our fruit-growing readers. The fear of the small-pox, which prevails to some considerable extent in that city, was announced as the cause of the comparatively small attendance, but the presence of men prominent for their success in, and writings on, fruit culture, gave great interest to the sessions of the Convention.

Charles Downing, our most eminent pomologist, A. S. Fuller, the well-known writer on small fruit culture, and now horticultural editor of the N Y. Sun; P. T. Quinn, famous for getting profit out of pear-growing, and money out of market-gardening, and horticultural editor of N. Y. Tribune; Wm. Saunders, the horticulturist of the Department of Agriculture at Washington; Josiah Hoopes, the well-known and highly respected nurseryman of West Chester, Pa., (and President of the Society); Thomas Meehan, editor of the able Gardeners' Monthly; H. T. Williams, of the Horticulturist; D. W. Herstine, the originator of the new raspberry bearing his name; Parry and Moores, extensive small fruit-growers of N. J., were present and contributed materially to the success of the meeting.

We have in type a full report of the proceedings of the Convention, but our space is so full it is necessary to let it go over till our next issue. Containing the experience of men eminently successful in fruit growing, it will be found interesting reading.

### SALE OF IMPORTED STOCK.

The sale of stock, shipped to Baltimore by Mr. P. H. Fowler, advertised in the January Farmer, took place on the 18th uit, and was well attended by breeders of this and other states. The cattle generally were not in the best condition, consequent upon their very long sea voy. age, the vessel having been over sixty days between ports. Prices realized w re fair ones and are given in detail below, with names of purchasers. The Shropshire-Down rams were very fine animals,

JERSEYS. -Beauty, five years old, sold for \$210 to J. Carter Brown, Jr., Providence, R. I.; Jessie, five years old, \$165, Lambert Gittings, Baltimore county; Rose four years old, \$210, E. Phillips, Baltimore; Yellow Lilly, \$140, Mr. Evans, Baltimore; Countess, 150, Mrs. De Speyer, Baltimore county; Jannette, four years old. \$165, James Atlee, Baltimore; Lucelle four year; old, \$155, Mrs. De Speyer; Empress, 5 years old, \$185, H. T. Weld, Mount Bavage, Md; Favorite, two years old, \$230, W. S. Taylor, Burlington, N. J.; Daisy, three years old, \$210, Samuel Sutton, Baltimore county; Jewel, three years old, \$200. B. J. Sharpless, Philadelphia; La Belle eighteen months old, \$130, W S. Brissell, Pittsburg, Pa.; Polly, three years old, \$185, Samuel Sutton; Gipsy, two years old, \$230, W. 8. Brissell; Buttercup three years old, \$220, Samuel · utton; Saucy, two years old, \$205, Dr. Patterson, Baltimore county; Blanche, \$230, M. B. Brown, Pittsburg, Pa.: Heifer calf dropped at sea 31st December, 1871, \$55, same purchaser: Jersey Bull Dandy, eighteen months old, \$200, J. C. Grafflin, Baltimore.

GUERNSETS.-Yellow Lily, two years old, \$80, A. J. Albert, Baltimore county; Star, two years old, \$90, A. C. Johnson, West Virginia; Julia, same age, \$105, Washington Lee, Jr., Wilkesbarre, Pa.; La Croeme, three years old, \$165, same purchaser; Princess, two and a-half years old, \$140, Thomas M. Harvey, West Grove Station, Pa.; Louisa, same age. \$155, Washington Lee, Jr; Jennette, two years old \$155, same purchaser; Orange, two years old, \$200, same purchaser; bull calf, dropped at sea December 29th, 1871, \$15, W. Rutherford, Pa.

Sunopaning-Down Sunep. Nine one-shearling ewes sold as follows: One for \$35, Samuel Sutton; one for \$25, James Mitchell, Baltimore county; two for \$40 each. R. Barksdale, Clintonville, W. Va.; one for \$11, H. Carroll. Baltimore county; one for \$50, W. L. Peiper, Lancaster, Pa.; one for \$48, H. Carroll; one for \$45, Samuel Sutton; one for \$52, H. Carroll; one two shearling ram for \$115. Samuel Sutton; one one-shearling ram for \$75. Alexander Brown, Baltimore county; a one shearling ram for \$135, R. Barksdale.

THE Dogs .- Three sporting does were sold as follows : Fan, field spaniel, for \$47, H. T. Weld; Jess, retriever, for \$55, Washington Lee, Jr.; Tohy, do., for \$16, W. S. Brissell. Collie dogs: Laddie, for \$31, A. J. Albert; Spring, \$68, Washington Lee, Jr ; Fly, \$31, R. J. Young ; Yarrow, \$31. Alexander Brown; Flora, 27, C. T. Dorsey. Skye terriers: Fanny, \$40, Mr. Manning: Punch, \$19, Mrs. De Speyer; Joe, \$27, same purchaser; Jess. \$27, same purchaser; Joss. \$23, same purchaser; Tidy \$21, P. G. Sauerwein; Friday, \$34, R. J. Young. A lot of twelve ponies, eight Shetland and four Mountain-bred, were sold at private sale to John F. Robinson, Cincinnati, for \$125, each. The sale amounted to \$7,986, and was conducted by Messrs. P. H. Sullivan & Sons, Auctioneers.

### BALTIMORE MARKETS, Jan. 22.

Breadstuffs.—Market more active. Sales at Corn Exchange of Western Buper Flour, very choice at \$6.50; Western Extra at \$7.87.50; Howard St. Super \$6.86.25; Howard St. Extrn, \$6.622,86.75; Howard St. Family, \$7.50x85 50; City Mills, Super, \$6.00x85 50; City Mills, Super, \$6.00x85 50; City Mills, \$7.50x85 50; City Mills, \$7.50x85 50; City Mills Standard Extra, \$6.75x87.00; City Mills Rib Brands, \$7.50x85 20; City fancy brands range at \$9.50 to 8.00.50. Rye Flour, \$4.75x85.25; Fine Flour, \$4.75

Cotton.-Little activity exhibited, and prices a little Cotton.—Little scuvity exhibited, and prices a little off, owing to heavy receipts. Sales of good ordinary at 20x20%c; low midding at 20%221%c; midding. 21%c. Mill Fred.—Brownstoff, 26x28c; Middings. 27x30c, for light Western; \$3x35c/for light City Mills, and 40a.

Mill Fred.—Brownstiin, 20228; middlings, 2430c, for light Western; \$3.35c/for light City Mills, and 40a 50c for medium to heavy do.

Rice.—Curolina, \$8.84/c for fair to prime; stock light, Seed.—Cliver more sctive, sales as \$7.25 for prime; Timothy, \$3.75a\$4. kiledy to be higher; Ky. Blue Grass, \$3: Orchard Grass, \$2.50.

Tobocco—There is more inquiry for all descriptions, but receipts continue very light. We quote prices as follows: Maryland. frosted, \$6.00a\$6.50; sound to good common, \$7.00a\$5.0; middling, \$9.00a\$10.50; good to fine brown, \$11.00 to \$12.00; fancy, \$14.00 to \$25.00. Upper Country, \$6.00a 500; ground 1.aves, new, \$6.00a 900. Virginia, common to good lugs, \$6.00a 7.00; common to medium leaf. \$7.50a 900; good to fine do., \$9.50a 50; stems, good to fine, \$4.00a 50; primings, \$5.00a 50; stems, good to fine, \$4.00a 50.

Lice Stock—Heef Cratte, be sto neale, 6a 7/c.; generally rated first-class, 5a6c; medium quality, 4a5c; ordinary thin Steers. Oxen and Cows. \$3/44c—Hogs. 6a 5/c. net; market over supplied. Sheep, 5a 6/c. for fair to good, and 6/mas for good to extra, gross; good Sheep are scarce and in 4-mand.

are scarce and in demand. Guanss —Peruvian. Chincha Island. \$74 currency; Guansse. \$68 per ton of 2 000 lbs., in quantities less thua 10 tons; Mexican, AA, \$25a30; A, \$22a25; Navasa, \$28.

### NEW ADVERTISEMENTS.

John S. vol.—Seed. Fruit and Ornamental Trees.
R Cumming & Co.—Knox Fruit Farm and Nurseries.
E. Moody & Sons—Standard Pear Trees.
S. R. Builey—Mammoth Dent Corn.
E. J. Evans & Co.—Garden and Field Seeds.
Thos. W. Levering & Sons—Grass and other Field Seeds. Hallock & Robinson-Garden Seeds, Implements, &c. L. E. Rice—Jersey and Ayrabire Cattle.

Jus. Stewart & Co.—Sheep, Swine and Poultry.

M. Rows—Houdan Fowls and Eggs.

C. W. Rows. M. Kews-Houan Fown and Eggs.
C. W. Burges & Son. Mexican and other Gunnos, &c.
C. S. & E. B. Frey-Plaster Paris, Corn Husk«
Balt. City Fret's Ma'f'g Co.—Bone Pust, Poudrette, &c.
Geo. Dugdale & Co.—Excellensa Fertilizers, Bonce, &c. Walten, Whann & Co.—Bone Dust and Bone Mral.

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—Raw Bone Superphosphates.

D. E. Fouts—De Bing's Pile Remedy.

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Grißth, Buker & Bryen — Buc Horse Rake. &c.
John C. Duboroz—Krity Mowers Reapers. &c.
Geo. Page & Co.—Portable Saw Mills. Steam Engines.
Joshua Thomas—Buckere Mower and Reaper.
Jos. P. Cusey & Co.—Saddle, Harness and Trunk Manuf.
Hagh Sisson—Marble Mantels. Statuary, Tiles, &c.
Linlan & Co.—Pottery Ware Machines.
Smith & Curletts—Steam Soap and Candle Works.
Duscan & Gibson—Ky. Farm Home Journal.

(able Screw Wire—For Boots and Shoes.

W. H. Richardson—Faner Poultry. W. H. Richardson-Fancy Poultry.
J. Warren & Son-Steam Engine and Tile Machine J. Stricker Jenkins-Choice Cattle, Sheep and Fowls. Isaac N. Bolthis-Mammoth Dent Corn. Bure N. Hollows - Mammoth Bells Cong.

Ellisinger & Barry - Fruit and Ornamental Trees.

O. P. Howe & Co. - Employment.

Linton & Lomati - Carbart's Pat. Palveris'g Cultivat'r.

H. A. King & Co. - N. Y. Bee Jour. and Nat'l Agric'st.

B. M. Bhodes & Co. - Standard Fertillisers.

E. J. Peck. - Italian Queens. Hives. Beo. Feeders, &c.

David Stewarts. - Sale of shoice Com. David Stewart-Sale of choice Cows.

### Special Notice.

The N. Y BEE JOURNAL AND NATIONAL AGRICULTURIST for February, has a fine engraving of the root, stocks and seven ears of Mammoth Dent Corn, (advertised in another column) all the growth and product of one KERNEL. Sample sent free. Address

H. A. KING & Co.,

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For any case of Blind, Bleeding,
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This preparation, long and favorably known, will thoroughly re-invigorate broken down and low-spirited lorses, by strengthening and cleansing the

by strengthening and cleansing the stomach and intestines.

It is a sure preventive of all diseases incident to this animal, such as LUNG FEVER, GLANDERS, YELLOW WATER, HEAVES, COUGHS, DISTEMPER, FEVERS, FOUN DER, LOSS OF APPETITE AND VITAL ENERGY, &c. Its use improves the wind, increases the appetite-gives asmooth and glossy skin—and transforms the miserable skeleton into a fine-looking and spirite I loose. into a fine-looking and spirite I horse.



To keepers of Cows this prepara-tion is invaluable. It is a sure pre-ventive against Rinderpest, Hollow Horn, etc. It has been proven by actual experiment to increase the quantity of milk and cream twenty per cent. and make the butter firm 1 a 1 sweet. In fattening cattle, it posits, loosens their hide, and makes gives them an appetite, loosens their hide, and makes

them thrive much faster. In all diseases of Swine, such as Coughs, Ulcers in

In all diseases of Swinz, such as Co-the Lungs, Liver, &c., this article acts as a specific. By putting from one-half a paper to a paper in a barrel of gwill the above diseases will be eradi-cated or entirely prevented. If given in time, a certain preventive and cure for the Hog Choiers.



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OUR NEW ILLUSTRATED CATALOGUE, description of all leading varieties, and a select List of the most desirable Novelties, Prices, Directions for Culture, Useful Tables, &c., is issued, and will be mailed to our customers FRES, to others desiring a copy, on receipt of 10 cents.

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FIELD and GARDEN SEEDS of every description; FRUIT and ORNAMENTAL TREES GUANO, BONE, PLASTER and FERTILIZERS generally. All kinds of Machinery repaired at short notice and on reasonable terms.

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An immense stock of New, Rare and Beautiful Plants' for the Greenhouse, Parlor and Garden, See new Cata-

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6-b-21

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It will yield more, shell more, weigh more, fill better at both ends of the ear, has greater depth of grain, and will do better on all kinds of soil

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# Whann's Raw Bone Super Phosphate,

The Great Fertilizer for all Crops.

Worn out or poor land, manured with the above Super Phosphate, will produce large crops of

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For Corn, Potatoes and all Spring crops, without a superior.

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All the above are made purely from BONE. CIRCUL' as furnished on application.

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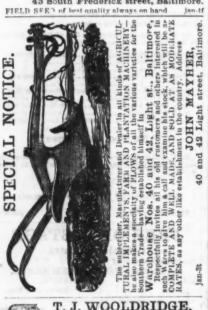
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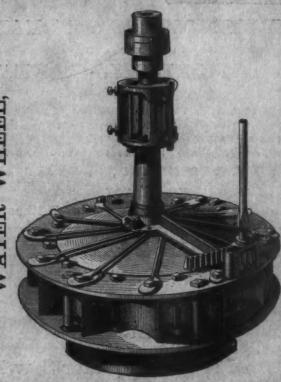
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